#### MCQs for the Internship Examination of DVM 2015 class

#### **FOREWORD**

This booklet is comprised of multiple choice (MCQs) and short questions aimed at assessment of the knowledge and skills of outgoing DVM graduates. The MCQs and short questions in this booklet are from different areas pertaining to animal health and production, which have been developed by different Faculties of Veterinary and Animal Husbandry at University of Agriculture, Faisalabad. This is a great effort and hope would be highly significant for preparartion of different degree awarding and entry exams by day 1 veterinarians. Large participation and input by the faculty members and Mr. Khurram Shahzad Afzal for composing and formatting of this booklet is gratefully acknowledged.

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### Contents

Subjects/MCQs/Keys	Page #
MCQs Anatomy and Histology	3
Keys MCQs Anatomy and Histology	19
MCQs Animal Production	20
Keys MCQs Animal Production	33
CMS Section A: Medicine	34
CMS Key Section A: Medicine	41
CMS Section B: Surgery	42
CMS Key Section B: Surgery	48
IOM Section A: Veterinary Epidemiology and Public Health	49
IOM Key Section A: Veterinary Epidemiology and Public Health	54
Section B: Food Microbiology and Immunology	55
IOM Key Section A: Food Microbiology and Immunology	59
IOM Section C: Molecular Biology	60
IOM Key Section C: Molecular Biology	65
IOM Section D: General Microbiology & Bacteriology	66
IOM Key Section D: General Microbiology & Bacteriology	71
MCQs Miscellaneous Section A	72
Keys Miscellaneous Section A	91
MCQs Miscellaneous Section B	92
Key Miscellaneous Section B	104
MCQs Miscellaneous Section C	105
Key Miscellaneous Section C	115
PARA MCQs Section A: Protozoology	116
PARA Key Section A: Protozoology	120
PARA Section B: Helminthology	121
PARA Key Section B: Helminthology	126
PARA MCQs Section C: Entomology	127
PARA Key Section C: Entomology	136
MCQs Section A: Clinical Pathology	137
Keys MCQs Section A: Clinical Pathology	141
MCQs Section B: Systemic Pathology	142
Keys MCQs Section B: Systemic Pathology	150
MCQs Section C: Poultry Pathology	151
Keys MCQs Section C: Poultry Pathology	162
MCQs Section A: Physiology	163
Keys MCQs Section A: Physiology	170
MCQs Section B: Pharmacology	171
Key MCQs Section B: Pharmacology	177
MCQs Section A: Theriogenology	178
Key MCQs Section A: Theriogenology	190
MCQs Section B: Theriogenology / Animal Reproduction	191
Keys MCQs Section B: Theriogenology / Animal Reproduction	203
Short questions with answers	204

### Anatomy

## MCQs Anatomy and Histology

No.	Question	Choice	Answers
		a	Plasma membrane
1		b	Nuclear membrane
1	Cell is bounded by a membrane	С	Basement membrane
		d	Lysosomal membrane
		a	Protein synthesis
_		b	Production of enzyme
2	Mitochondria is mainly involved in	С	Generation of energy
		d	Production of hormones
		a	Cytoplasm
2	TI DAYA 6 11:	b	Nucleus
3	The DNA of cell is mainly present in	С	Rough endoplasmic reticulum
		d	Lysosome
		a	Cytoplasmic organelle
		b	Cytoplasmic inclusion
4	Melanin is a	С	Enzyme
		d	Hormone
		a	Constant
_		b	Double
5	In case of mitosis, chromosome number remains	c	Half
		d	None of above
		a	Tight Junction
		b	Adhering junction
6	In epithelium, junction between two cells are	c	Communicating junction
		d	None of above
		a	Cilia
		b	Flagella
7	The spermatozoa moves by	c	Microvilli
		d	None of above
		a	Mitochondria
		b	Rough endoplasmic reticulum
8	Inside cell, protein synthesis is done by	c	Lysosomes
		d	Smooth endoplasmic reticulum
		a	Inclusion
		b	Organelle
9	The non-living component of cell is called	c	Nucleus
		d	Cytoplasm
		a	1
		b	2
10	The mitosis comprises of following number of phases	c	3
		d	4
		a	Unicellular organism
		b	Bi-cellular organism
11	Animal is a	c	Multicellular organism
		d	None of above
-		a	Protein
		b	Lipid
12	Glycogen is the major storage form of	c	Carbohydrate
	_	d	Glycoprotein
			Cytology
		a b	Pathology
13	The study of cell is called		Parasitology
		c d	Embryology
14	Fat is stored primarily in	+	Muscle
14	Lat is stored billiarily iii	a	IVIUSCIC

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24 of which of the following target substances when tissues are prepared for paraffin sectioning?  c Enzymes d Carbohydrates				*
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	24		С	
e Nucleic acids		are prepared for paraffin sectioning?	d	
<u> </u>	<u></u>		e	Nucleic acids

		a	Alkaline phosphatase
		b	DNA ligase
	Which of the following enzymes is used during DNA	c	DNA polymerase
25	cloning procedures to isolate specific genes by cutting	d	Horseradish peroxidase
	DNA at specific nucleotide sequences?	e	Restriction nuclease
		g	Reverse transcriptase
		h	RNA polymerase
	The agents in which of the following procedures are	a	Clearing
26	intended to stabilize tissue structure by coagulating	b	Dehydration
	proteins and promoting cross- linking?	С	Embedding
		a	Junctional complex
	Which of the following best describes the appearance of	b	Lipid bilayer
27	a unit membrane under a transmission electron	С	Penta-laminar structure
	microscope?	d	Porous structure
	•	e	Tri-laminar structure
		a	Free polyribosome
		b	Golgi complex
28	The synthesis of all proteins appears to be initiated on	c	Nucleosomes
20	which of the following cellular components?	d	Ribophorin
		e	RER
		a	Energy metabolism and glycogen
	Which of the following pairs of functions is most closely associated with the Golgi complex?	а	synthesis
		b	Energy metabolism and lipid
		U	metabolism
29		c	Glycogen synthesis and packaging of
29		C	secretions
		d	Glycosylation and sulfation of
		u	secretory products
		e	Lipid metabolism and concentration
		a	Allows extracellular materials to enter
		а	cells without endocytosis
		b	Contains densely packed, inactive
	Which of the fellowing descriptions hast shorestorizes a	U	hydrolytic enzymes
30	Which of the following descriptions best characterizes a		Contains aging organdies
	phagosome?	d d	
			Forms by budding from a lysosome
		e	Is surrounded by membrane derived
			from the Golgi complex
		a	Cristae
21	Which of the following is the location of Krebs cycle	b	Inner mitochondrial membrane
31	enzymes and mitochondrialDNA?	C	Matrix granules
		d	Mitochondrial matrix
		e	Outer mitochondrial membrane
		a	Cristae
	Which of the followings is the location of the electron-	b	Fl subunits
32	transport system?	С	Inner mitochondrial membrane
	<u>.</u>	d	Intracristal space
		e	Matrix granules
		a	Golgi complex
	Which of the followings is the site of core glycosylation of secretory proteins?	b	Free polyribosomes
33		c	Mitochondria
		d	RER
		e	SER
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Which of the followings is the site of steroid hormony synthesis?  Which of the followings is the site of actin and tubuling synthesis?  Which of the followings are important components of axonemes?  Which of the followings are important components of axonemes?  Which of the following substances characteristically increase in abundance with increasing age in terminally differentiated cells such as neurons and muscle?  Which of the followings are composed primarily of actin are the following substances characteristically increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increase in abundance with increasing age in terminally cally increased in abundance in a basel bodies  Which of the followings are composed primarily of actin a Basal bodies  Which of the followings are composed primarily of actin a Basal bodies  Which of the followings are composed primarily of actin a Basal bodies  In rat hepatocytes, the crystalline nucleoid (dense core) of proxisomes is believed to be composed of which of the following substances?  Which of the followings is true of the smooth muscles of the firs?  Which of the followings is true of the smooth muscles of the firs?  Which of the following structures is likely to contain the most vasa vasorum in its tunica media?  Which of the following structures is likely to contain the most vasa vasorum in its tunica media?  Which of the following structures contains the most elastin in its tunica media?  Which of the followings is true of the ventricles?  Which of the followings is true of the ventricles?  Are located at the base of the heart by a Areriole call and the bandent granules  Caclated at the base of the heart by and the thought of the following ventry in the vent		T		
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	53	to the circulation after leaving the blood to enter the	c	Lymphocytes
e Neutrophils			d	Monocytes
			e	Neutrophils

Which of the following cell types normally is the most numerous of the circulating leukocytes?  Which of the following cells is an agranulocyte that becomes phagocytic after it enters the connective tissues?  Which of the following cell types has cytoplasmic granules that Contain heparin and histamine?  Which of the following substances is present in higher concentrations in plasma than in serum?  Which of the following substances is present in higher concentrations in plasma than in serum?  Which of the following terms refers to the percentage of packed crythrocytes per unit volume of blood?  Which of the following is the predominant form of hemoglobin present in crythrocytes at birth?  Which of the following cell types is more abundant in quantity?  Which of the following epidermal layers contains uperficial layer?  Which of the following epidermal layers contains uperficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  Baseophils  Besionophils  C. Brythrocytes  C. Brythrocyte  C. Brythrocyte  C. Brythrocytes  C. Brythrocyte		<u>,                                    </u>		
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becomes phagocytic after it enters the connective tissues?    Comparison of the contain the part of the part of the contain the part of the contain the part of the contain the part of th		Which of the following cells is an agranulocyte that	С	-
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concentrations in plasma than in serum?  concentrations in plasma than in serum?  d Immunoglobulin c Major basic protein f Serotonin a Hemoglobin b Hematocrit c Hematopoiesis d Hematoma d Hemoglobin b Hematocrit c Hemolysis a Carboxyhemoglobin b HbA d HbB c HbF f HbS a Basophils b Jymphocytes c Eosinophils d Monocytes e Neutrophils a Stratum basale b Stratum granulosum contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  d Immunoglobulin c Major basic protein f Serotonin d Hemoglobin b Hematocrit c Hematopoiesis d Hematoma d Hemoglobin b Hematocrit c Hemolysis a Carboxyhemoglobin b HbA d HbB c HbF f Which of the following cell types is more abundant in quantity?  a Basophils b Jymphocytes c Eosinophils d Monocytes e Neutrophils a Stratum basale b Stratum granulosum c Stratum granulosum d Stratum ucidum c Stratum granulosum d Stratum ucidum c Stratum spinosum a Stratum basale b Stratum orneum c Stratum spinosum a Stratum spinosum c Stratum spinosum a Stratum spinosum a Stratum psinosum a Stratum corneum c Stratum spinosum c Stratum spinosum a Stratum spinosum a Stratum corneum c Stratum spinosum c Stratum spinosum a Stratum lucidum c Stratum spinosum a Stratum corneum c Stratum granulosum d Stratum corneum a Stratum corneum c Stratum spinosum a Stratum corneum c Stratum granulosum d Stratum lucidum c Stratum granulosum			b	
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backed erythrocytes per unit volume of blood?    A	58			
Which of the following is the predominant form of hemoglobin present in erythrocytes at birth?  Which of the following cell types is more abundant in quantity?  Which of the following cell types is more abundant in quantity?  Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  Be Hemolysis  a Carboxyhemoglobin  b HbA  d HbB  e HbF  f HbS  a Basophils  b lymphocytes  c Eosinophils  d Monocytes  e Neutrophils  a Stratum basale  b Stratum corneum  c Stratum granulosum  d Stratum basale  b Stratum corneum  c Stratum granulosum  d Stratum lucidum  e Stratum basale  b Stratum spinosum  a Stratum basale  b Stratum corneum  c Stratum spinosum  d Stratum basale  b Stratum corneum  c Stratum spinosum  d Stratum basale  b Stratum corneum  c Stratum granulosum  d Stratum basale  b Stratum granulosum  d Stratum basale		packed erythrocytes per unit volume of blood?		*
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Which of the following is the predominant form of hemoglobin present in erythrocytes at birth?  Which of the following cell types is more abundant in quantity?  Which of the following cell types is more abundant in quantity?  Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  b HbA  d HbB c HbF f HbS a Basophils b lymphocytes c Eosinophils a Stratum basale b Stratum corneum c Stratum granulosum a Stratum lucidum c Stratum pasale b Stratum corneum c Stratum pasale b Stratum lucidum c Stratum basale b Stratum corneum c Stratum basale b Stratum corneum c Stratum pasale b Stratum corneum c Stratum basale b Stratum corneum c Stratum pasale b Stratum corneum c Stratum granulosum d Stratum lucidum e Stratum pasale b Stratum corneum c Stratum granulosum d Stratum lucidum e Stratum pasale				·
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60 Which of the following cell types is more abundant in quantity?  Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  f HbS  a Basophils  b lymphocytes  c Eosinophils  d Stratum basale  b Stratum corneum  c Stratum granulosum  d Stratum basale  b Stratum pinosum  a Stratum basale  b Stratum corneum  c Stratum pinosum  d Stratum lucidum  e Stratum basale  c Stratum granulosum  d Stratum corneum  c Stratum granulosum  d Stratum lucidum  e Stratum pinosum  a Stratum pinosum  d Stratum pinosum  a Stratum pinosum  d Stratum lucidum  e Stratum pinosum  d Stratum lucidum  e Stratum pinosum  d Stratum lucidum		nemogroom present in erythrocytes at ontin?	-	
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60 Which of the following epidermal layers contains 61 enucleated squamous keratinocytes and is the most superficial layer?  62 Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  63 Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  64 Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  65 Eosinophils  d Monocytes  e Neutrophils  a Stratum basale  b Stratum granulosum  c Stratum basale  b Stratum corneum  c Stratum pinosum  d Stratum lucidum  e Stratum basale  b Stratum basale  c Stratum spinosum  d Stratum basale  c Stratum pinosum  d Stratum corneum  c Stratum granulosum  d Stratum corneum  c Stratum granulosum  d Stratum corneum  d Stratum pinosum				*
d Monocytes e Neutrophils a Stratum basale  Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  C Etostnophils a Stratum basale  b Stratum granulosum c Stratum granulosum a Stratum basale b Stratum basale c Stratum basale c Stratum pasale c Stratum corneum c Stratum corneum c Stratum pasale d Stratum basale c Stratum granulosum d Stratum lucidum		Which of the following cell types is more abundant in		
Which of the following epidermal layers contains enucleated squamous keratinocytes and is the most superficial layer?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Extratum basale  Stratum basale  Stratum lucidum  e Stratum spinosum  a Stratum basale  Stratum basale  Stratum basale  C Stratum spinosum  a Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum basale  A Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum basale  A Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum basale	60	• • • •		
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62 Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  C Stratum granulosum  d Stratum lucidum  e Stratum spinosum  a Stratum basale  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  C Stratum granulosum  a Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum granulosum  d Stratum granulosum  d Stratum granulosum			d	
Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  C Stratum granulosum  d Stratum lucidum  e Stratum spinosum  a Stratum basale  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  C Stratum granulosum  a Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum basale  Stratum granulosum  d Stratum granulosum  d Stratum granulosum				
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62 Which of the following epidermal layers is most likely to contain both desmosomes and hemidesmosomes?  Contain both desmosomes and hemidesmosomes and hemidesmoso				
d Stratum lucidum e Stratum spinosum a Stratum basale  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  d Stratum lucidum e Stratum corneum c Stratum granulosum d Stratum lucidum	62			
e Stratum spinosum  a Stratum basale  Keratohyaline granules are particularly abundant and mitotic activity is rare in which of the following epidermal layers?  e Stratum spinosum  b Stratum corneum  c Stratum granulosum  d Stratum lucidum	02			
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mitotic activity is rare in which of the following c Stratum granulosum epidermal layers?		Want to the court to the state of the state		
epidermal layers?  d Stratum lucidum				
	63			
e Stratum spinosum				
			e	Stratum spinosum

		-	Stratum basale
	Which of the following epidermal layers is the most superficial layer in which keratinocyte mitosis occurs	a b	Stratum basale Stratum corneum
64		c	Stratum corneum Stratum granulosum
04	continuously and in which cells are attached to their	d	Stratum granulosum Stratum lucidum
	neighbors during interphase by abundant desmosomes?		Stratum spinosum
		e	Arrector pili muscles
	-	a b	Meissner's corpuscles
	-		Stratum basale
65	Which of the followings is (are) often absent in thick	c d	Stratum dasale Stratum corneum
03	skin but typically present in thin skin?	-	Stratum lucidum
		e f	
			Stratum spinosum
		g	Sweat glands
	-	a b	Capillaries that nourish the epidermis
			Dense irregular connective tissue
	Which of the followings is typical of the reticular dermis	d d	Loose (areolar) connective tissue
66	but not of the papillary dermis?		Meissner's corpuscles
		e	Sweat gland ducts
		f	Type-I collagen
		g	anastomoses
		a	Adenomeres are typically acinar in
		1.	shape Adenomeres contain clear cells and
		b	
			dark cells
	XXII: 1 C.1 C.11 : 1 1	c	Adenomeres have a "foamy"
67	Which of the followings is characteristic of sweat glands		appearance
	but not of sebaceous glands?	d	Ducts empty mainly into hair follicles  Mode of secretion is holocrine
		e f	
		Ι	Rate of secretion is controlled by
		~	circulating androgens Secretory product is oily to waxy in
		g	
			nature Catalase
		a b	Collagenase
68	Albinism can result from an inherited defect in the gene		Papain
08	encoding which of the following enzymes?	c d	Prolyl hydroxylase
			Tyrosinase
		e	Dermis and epidermis
		a b	
	The horder between which of the followings is a		Epidermis and basal lamina  Pepillery dermis and rationles dermis
69	The border between which of the followings is a significant site of arteriovenous anastomoses in the skin?	c d	Papillary dermis and reticular dermis
	significant site of afteriovenous anastomoses in the Skin?		Stratum spinosum and stratum
		e	Stratum spinosum and stratum granulosum
			Renal pyramid and associated cortex
		a b	Medullary ray and all nephrons that
		υ	
			empty into it  Renal pyramid and all aephrons that
70	Which of the followings best describes the composition	c	empty into it
70	of a renal lobule?	d	Interlobular artery and all nephrons it
		u	· · · · · · · · · · · · · · · · · · ·
			supplies  Renal corpuscle and all associated renal
		e	tubules
		a b	Afferent arteriole(s)
		b	Efferent arterioles
71	Blood in the arcuate arteries subsequently flows into	С	Glomerular capillaries
71	which of the following vascular channels?	d	Interlobar arteries
		e	Interlobular arteries
		C	Danistalan and '11 and a
		f g	Peritubular capillaries Stehlate veins

			Interlabular contav
		a	Interlobular cortex
7.0	Collections of cortical tissue between the medullary	b	Juxtamedullary nephrons
72	pyramids are called:	c	Medullary rays
		d	Renal columns of Bertin
		e	Renal lobes
		a	Arcuate arteries and veins
	Which of the following vessels are typically seen at the	b	Interlobar arteries and veins
73	border between the renal cortex and medulla?	c	Interlobular arteries and veins
	border between the renar cortex and meduna:	d	Stellate veins
		e	Vasa recta
		a	Endothelial cell
		b	Juxtaglomerular cell
74	Which of the following cell types comprises the visceral	С	Mesangial cell
	layer of Bowman's capsule?	d	Podocyte
		e	Polkissen (extra mesangial cell)
		a	Pseudostratified columnar
		b	Simple columnar
75	Which of the following types of epithelium lines the		
75	urinary bladder?	С	Simple cuboidal
		d	Stratified squamous
		e	Transitional
		a	Pseudostratified columnar
		b	Simple columnar
	Which of the following types of epithelium comprises	c	Simple cuboidal
76	the parietal layer of Bowman's capsule?	d	Simple squamous
	the parietal layer of Bowman's capsule?	e	Stratified cuboidal
		f	Stratified squamous
		g	Transitional
		a	Pseudostratifled columnar
		b	Simple columnar
		С	Simple cuboidal
77	Which of the following types of epithelium lines the	d	Simple equamous
//	thick ascending limb of the loops of Henle?		Stratified cuboidal
		e f	Stratified squamous
			Transitional
		g	
		a	Pseudostratifled columnar
	Which of the following types of epithelium lines the	b	Simple columnar
78	prostatic urethra?	c	Simple cuboidal
	F	d	Simple squamous
		e	Transitional
		a	Pseudostratifled columnar
		b	Simple columnar
	Which of the following types of smith-liver lives the start	c	Simple cuboidal
79	Which of the following types of epithelium lines the thin	d	Simple squamous
	loop of Henle?	e	Stratified cuboidal
		f	Stratified squamous
		g	Transitional
		a	Pseudostratified columnar
		b	Simple columnar
			Simple cuboidal
80	Which of the following types of epithelium lines the	c d	
00	proximal convoluted tubule?	-	Simple squamous
		e	Stratified cuboidal
		f	Stratified squamous
		g	Transitional
		a	Lenticular and conical
	Lingual papillae with gustatory function are	b	Fungiform and vallate
81		c	Foliate only
		d	Filiform and fungiform
		e	Fungiform, vallate and foliate
			<u> </u>

		a	Hard palate
		b	Soft palate
82	All but one do not contain taste buds	С	Epiglottis
		d	Vallate papillae
		e	Filiform papillae
		a	2
		b	3
83	How many cell types are present in taste buds?	c	4
0.5	Thow many cen types are present in taste buds:	d	5
		-	=
		e	None of above
		a	ype-I cells
		b	Type-II cells
84	Chemoreceptors of taste buds are present in	С	Type-III cells
		d	Both i and ii
		e	Both ii and iii
		a	5days
		b	7days
85	Life span of Sustentacular cells is	С	10days
	·F · · · · · · · · · · · · · · ·	d	12days
		e	15days
		a	Type-I cells
		b	Type-II cells
86	Sustanta gular rala in tasta huda is performed hy	_	
80	Sustentacular role in taste buds is performed by	С	Type-III cells
		d	Both a and b
		e	Both b and c
	Lyssa of tongue in cats is mainly comprised of	a	Skeletal muscles
		b	Smooth muscles
87		С	White adipose tissue
		d	Brown adipose tissue
		e	a) Both i and ii
		a	40%
		b	50%
88	How much minerals are present in the teeth dentin?	С	60%
	1	d	70%
		e	80%
		a	Labial salivary gland
		b	Lingual salivary gland
89	All are minor salivary glands except one, that is	c	Buccal salivary gland
09	7 m are minor sarryary grands except one, that is	d	Parotid salivary gland
		e	Zygomatic salivary gland
		a	Horse
		b	Ox
90	Striated ducts in sub-lingual salivary glands are not	c	Dog
	present in	d	Sheep
		e	Goat
		a	1-5 cell layers
	Stratum granulogum of ruminal musecal spithalium has a	b	2-3 cell layers
91	Stratum granulosum of ruminal mucosal epithelium has a	С	3-4 cell layers
	thicknessof	d	1-3 cell layers
		e	2-4 cell layers
		a	Horse
		b	Ox
92	Zygomatic salivary glands are only present in	c	Dog
12	Zygomatic sarryary grands are only present in	d	Sheep
		e	Goat

		a	Dog
		b	Cat
93	None but one contain the molar salivary glands	c	Ox
		d	Horse
		e	Pig
		a	Dog
		b	Cat
94	Esophageal epithelium is non-keratinized stratified	c	Ox
	epithelium in case of	d	Horse
		e	Pig
		a	Horse
		b	Ox
0.5	Lamina muscularis is absent in the cranial oesophageal		
95	part in	С	Dog
	•	d	Cat
		e	Pig
		a	Straight tubular glands
		b	Branched tubular glands
96	Gastric glands are of which type?	c	Simple alveolar glands
		d	Simple coiled tubular glands
		e	Tubulo-acinar glands
		a	Mucous neck cells
		b	Parietal cells
97	Most numerous cell type in gastric glands is	c	Endocrine cells
,	1.1350 numerous con type in gustine gianus is	d	Chief cells
		e	Goblet cells
	Stratum corneum of gastric mucosal epithelium has a thickness of	a	1-5 cell layers
		b	5-10 cell layers
0.0			
98		C	10-20 cell layers
		d	2-10 cell layers
		e	1-20 cell layers
		a	Oval
		b	Cuboidal
99	Shape of the cells of stratum spinosum is	c	Stellate
		d	Polyhedral
		e	Irregular
		a	Rumen
	Plica circularis are the circularly disposed mucosal folds	b	Reticulum
100	ļ	С	Abomasum
	present in	d	Small intestine
		e	Large intestine
		a	Tendon
	Bones are bind together with the help of strong bands	b	Ligament
101	called as	c	Aponeurosis
		f	None of above
			Highly moveable joint
		<u>a</u> b	Immoveable joint
102	Diarthrosis is a		
		С	Fixed joint
		d	Semi moveable joint
		a	Inflammation of gums
103	Gomphosis means	b	Implantation of teeth
- 35	Gomphosis means	С	Removal of teeth from gum
		d	None of above
		a	OX
104	The coronoid processin mandible is turned caudally in	b	dog
104		c	horse
		d	poultry
			· - •

		a	Horse
105	The tubercle of the ribs is concave in	b	Ox
103	The tuberere of the 1103 is concave in	c	Dog
		d	Pig
		a	Horse
100	Tokan salamai ia anaamad in	b	Ox
106	Tuber calcanei is grooved in	С	Dog
		d	Pig
		a	Umbilical artery
		b	Umbilical vein
107	Fossa ovalis is a remnant of	c	Foramen ovale
		d	Coronary sinus
			Pericardium
		a	
108	Internal lining of the heart is called as	b	Myocardium
		С	Endocardium
		d	Epicardium
		a	Trochlear
109	The largest cranial nerve of the body is	b	Trigeminal
109	The largest crainal herve of the body is	С	Oculomotor
		d	Facial
		a	Horse
110	m	b	Ox
110	Tuber ischiaii on os-coxae is three sided in	С	Dog
		d	Goat
		a	Horse
		b	Ox
111	Ischial arch is narrow and deep in	c	Dog
		d	Goat
			Endosteum
		a	
112	Membrane on the surface of the bone is called as	b	Periosteum
		С	Perichondrium
		d	None of above
		a	Braod ligament
113	The ligament present between two horns of uterus is	b	Proper ligament
113	The figuration present between two norms of decids is	c	Intercornual ligament
		d	Suspensory ligament
		a	One
114	To a local constitution Called Language and the Constitution of th	b	Two
114	Inguinal canal has following number of openings	С	Three
		d	Four
		a	Pelvic part
		b	Extra-pelvic part
115	Urethra has	c	Both a & b
		d	None of above
		a	Temporal bone
		b	Parietal bone
116	Horns are the extensions of the		Frontal bone
		С	
		d	None of above
		a	Two parts
117	Deltoideus muscle in ox has	b	Three parts
***	Denoideus muscle in ox nas	С	Four parts
		d	None of above
		a	Cells
110	Cytology is the study of	b	Different sites
118		С	Study under electron microscope
		d	Tissues
	1		

			Deletive position of different engage
	Topographic anatomy is the study of	a	Relative position of different organs Superficial study of structure
119		b	
		c	Deep study of structure
		d	None of above
	Leg contains	a	Radius and Ulna
120		b	Tibia and Fibula
120		c	Metacarpal
		d	Metatarsal
		a	Duramater
121	Cerebrospinal fluid (CSF) can be collected from	b	Piameter
		c	Subarachnoid space
		a	Scapula
122	Trochlea, a pulley like structure, is present in	b	Femur
		С	Humerus
		a	Lateral abdominal wall
123	Broad ligament in mare has attachment with	b	Sub lumber region in mare
123	Broad figurient in mare has actuerment with	c	With caudal wall
			Six
124	How many target hones are present in horse?	a b	Seven
124	How many tarsal bones are present in horse?		
		c	Eight
105	Distal articular surface is oblique in tibia of	a	Horse
125		<u>b</u>	Ox
		c	Dog
	How many carpal bones are present in horse?	a	Seven
126		b	Eight
		c	Nine
	How many branches of transverse process are present insixth cervical vertebra of horse?	a	Three
127		b	Four
		c	Five
		a	Heart
128	The cranial cavity encloses the	b	Brain
		c	Eyes
		a	Horse
129	A well-developed tuber spinae is present on scapula of	b	Ox
		С	Dog
		a	Dog
130	A rounded spleen is present in the body of	b	Goat
	The state of the s	c	Chicken
		a	Horse
131	Ulna is a reduced bone in	b	Ox
101	Chia is a reduced cone in	c	Dog
		a	Ox
132	Bicipital groove is undivided in	b	Horse
134	Dicipital groove is aliarviaca ili		
		c	Dog
122	H	a	Two
133	How many digits are present in ox?		
134	Tuber sacral forms a highest point than vertebral spines	a	
	in		
		С	
		a	
135	A symphysis mandibulae in horse is	b	Present
		c	None of the above
	Which of the followings is attached with the most of	a	Stomach
136	Which of the followings is attached with the mesentery in abdomen?	b	Intestine
		С	Uterus
		b c a b c a b	Three Four Horse Ox Dog Absent Present None of the above

			E'
107	TT 1'	a	Five
137	How many ligaments are present in the stomach of horse?	b	Six
		c	Seven
	Average length of small intestine of horse is	a	70 Feet
138		b	80 Feet
		c	90 Feet
		a	Trochanter
139	A large rounded non articular projection is called as	b	Tubercle
		c	Tuberosity
		a	Facet
140	A small articular surface is called as	b	Acetabulum
		С	Glenoid cavity
		a	Organs
		b	Tissue
141	Collection of cells is called as	c	System
		d	None of the above
		a	Tumor
		b	Abscess
142	Collection of Pus in the tissue is called		Pustules
		C	I .
		d	None of the above
	Clavicles are well developed in	a	Chicken
143		b	Horse
1.0		c	Dog
		d	None of the above
	Thoracic cavity is formed by	a	Sternum
144		b	Ribs
144		c	Thoracic vertebrae
		d	All of the above
		a	Lungs
1.45		b	Liver
145	Pneumonia is the inflammation of	С	Of chest wall
		d	None of the above
		a	Corona radiala
		b	Tonicadortus
146	Irregular muscular wall of the ventricles of the heart is	c	Trabeculae cornae
		d	None of the above
			Ox
		a	
147	Esophagus is more dilatable in	b	Horse
		С	Dog
<u> </u>		d	None of the above
		a	Ring shaped
148	Cricoid cartilage of larynx of ox is	b	More compressed
1.0		c	Very hard
		d	None of the above
		a	Ulnar carpal
149	Which of the followings is the bone in ox having two	b	Fibular tarsal
149	trochlea?	c	Tibial tarsal
		d	None of the above
		a	5 in numbers
1		b	6 in numbers
150	How many ligaments are present in stomach of horse?	c	7 in numbers
		d	None of the above
		a	Hind limb
		b	Fore limb
151	Calcanean tendon is present in		Neck region
		С	
		d	None of the above

		1	T =
		a	Goat
152	Kidneys are bean shaped in	b	Dog
132	Kidneys are bean shaped in	c	Both a & b
		d	None of the above
	How many lobes are present in liver of horse?	a	3
		b	4
153		c	5
		d	None of the above
		-	All the animals
		a	
154	Ulna is a reduced bone in	b	Horse
		С	Dog
		d	Chicken
		a	Goat
155	Coomules contile as is not museout in	b	Horse
155	Scapular cartilage is not present in	С	Chicken
		d	None of the above
		a	Tarsal
		b	Metatarsal
156	Greater trochantor is present on		
	ordiner documents to prosent on	C	Humerus
		d	Femur
		a	Ligament
157	Muscle attaches with the bone with the help of	b	Aponeurosis
137		c	Tendon
		d	Both b & c
		a	One belly
	Digastricus muscle has	b	Two bellies
158		c	Three bellies
		d	None of the above
			Radius
		a	
159	Popliteus muscle is present on	b	Ulna
		С	Tibia
		d	Femur
		b	Semimembronosis
1.00	T	b	Brachiocephalicos
160	Longest muscle in the body of horse is	С	Longissimus dorsi
		d	Semitendoinosis
		a	Meleagridae
161	The chicken belongs to family	b	
101	The efficient ociongs to family		Phasianidae A patidos
		С	Anatidae
1		a	Quadrate bone
162	The upper jaw of birds is movable due to	b	Frontal bone
		С	Jugal bar
	The following number of bones form the lower jaw in	a	3
163	birds	b	5
	ulus	С	7
		a	Synsacrum
164	The fused thoracic vertebrae in birds are called	b	Notrium
	and and are caned	c	Sternum
			7
165	In hirds, there are following number of a mission and the	a	
165	In birds, there are following number of cervical vertebrae	b	14
		c	16
		a	Head of rib
166	The rib cage in birds is rigid due to	b	Tubercle
	5	c	Uncinate process
		a	Keel
1.55	The sternum of birds is also called as	b	Furcula
167		c	Manubrium
			I .

			3
168	The posteral girdle is formed by following bones in hirds	a b	5
108	The pectoral girdle is formed by following bones in birds		7
		С	Coracoid
160		a	
169	The robust bone of pectoral girdle in birds is	b	Clavicle
		С	Furcula
4-0		a	Humerus
170	The largest wing bone in birds is	b	Scapula
		c	arpometacarpal
		a	2 bones
171	The Carpometacarpal bone in birds is formed by	b	3 bones
		c	Bone
		a	Oscoxae
172	The largest bone of pelvic limb in birds is	b	Femur
		c	Tibiotarsus
	The common of hinds have following much as of	a	2
173	The os-coxae of birds have following number of	b	1
	foramina	С	3
		a	4
174	There are following number of coelomic cavities in birds	b	6
1, .		c	8
		a	Diaphragm
175	The following structure is absent in birds	b	Pleura
173	The following structure is absent in onus	c	Pleural cavities
			Ramphotheca
176	Lips and teeth are absent in birds and replaced by	a	Tomium
176		b	
		С	Egg tooth
	The dorsal part of beak in birds is called	a	Tomium
177		b	Culmen
	1	С	Egg tooth
		d	None of above
		a	Egg Shell
178	On the rostral part of the Culmen in newly hatched chick	b	Egg Tooth
170	is a small pointed process called	c	Tomium
		d	None of above
		a	Hard palate
179	In hirds, the following structure is absent	b	Pharynx
1/9	In birds, the following structure is absent	c	Soft palate
		d	Diaphragm
	The management of the maleta have full mine	a	Stratified Squamous
180	The mucous membrane of the palate bears following	b	Simple squamous
	epithelium in birds	С	Stratified Squamous keratinized
		a	Hyoid bone
181	The skeleton of tongue in birds is formed by	b	Jugal bar
		c	Entoglossal
		a	6
		b	4
182	There are following no. of salivary glands in birds	c	8
		a	Cervical
183	The following part of esophagus is shorter in birds	b	Thoracic
103	The following part of esophagus is shorter in onus		Pharyngeal
-		С	
104	The internal limina of constant and in the last	a	Stratified Squamous epithelium
184	The internal lining of esophagus in birds is	b	Stratified Squamous keratinized
<u> </u>		С	Simple Squamous
4.0 -		a	Crop
185	The glandular stomach of birds is also called	b	Gizzard
		c	Proventriculus

		1	T -
186	The glandular stomach of birds has a length of	a	3cm
		b	5cm
		c	2cm
		a	Convex lens
187	Shape of muscular stomach in birds is like a	b	Concave lens
		c	Biconvex lens
		a	Simple Columnar
188	The wall of Gizzard is lined by	b	Simple Squamous
		c	Stratified Columnar
		a	Peritoneum
189	Jejunum in birds is attached with	b	Mesentery
		С	Duodenum
		a	Egg tooth
190	A short blind remnant of the yolk sac in birds is called	b	Yolk
	•	С	Meckles diverticulum
		a	1
191	In birds, following number of Ceaca are present	b	2
-, -		c	3
		a	Right lobe
192	The Gall bladder in birds lies in following lobe of liver	b	Left lobe
172		c	None of above
		a	Beta Cells
193	The endocrine portion of pancreas in birds is	b	Islets of langerhans
173		c	Alpha Cells
		a	Operculum
194	In birds, the nostrils are bounded dorsally by	b	Hairs
174	in ones, the nostins are bounded dorsaily by	c	Upper beak
		a	Syrinx
195	The voice box of birds is called	b	Larynx
193	The voice box of birds is canca	c	Pharynx
			55
196	Following number of cartilages are present in birds	a b	126
190	ronowing number of cartnages are present in onus	<b>-</b>	106
		С	5cm
197	The length of lungs in birds is	a	
197	The length of lungs in birds is	b	4cm
		С	7cm
100	Those one following no. of air case in hinds	a	8 9
198	There are following no. of air sacs in birds	b	
		С	10
100	TD1 6 11	a	Cervical
199	The following air sac is single in birds	b	Axillary
		С	Clavicular
		a	Light weight
200	Birds can fly due to	b	Pneumatic bones
		c	Wings

**Keys MCQs Anatomy and Histology** 

No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	A	51	A	101	В	151	A
2	С	52	D	102	A	152	С
3	В	53	Е	103	В	153	A
4	В	54	Е	104	A	154	В
5	A	55	В	105	В	155	С
6	A	56	A	106	В	156	D
7	В	57	D	107	С	157	D
8	В	58	В	108	С	158	В
9	A	59	A	109	В	159	С
10	D	60	Е	110	В	160	С
11	С	61	В	111	В	161	В
12	С	62	A	112	В	162	A
13	A	63	C	113	C	163	В
14	В	64	E	114	В	164	В
15	D	65	A	115	C	165	В
16	D	66	В	116	С	166	В
17	С	67	В	117	A	167	A
18	A	68	Е	118	A	168	A
19	С	69	С	119	A	169	A
20	A	70	В	120	В	170	A
21	C	71	Е	121	С	171	В
22	В	72	D	122	В	172	C
23	C	73	A	123	В	173	C
24	D	74	D	124	В	174	С
25	С	75	Е	125	A	175	A
26	D	76	D	126	В	176	A
27	Е	77	С	127	A	177	В
28	A	78	Е	128	В	178	В
29	D	79	D	129	A	179	С
30	C	80	C	130	С	180	A
31	D	81	Е	131	A	181	C
32	C	82	D	132	A	182	C
33	D	83	E	133	С	183	A
34	E	84	С	134	В	184	A
35	В	85	С	135	A	185	C
36	D	86	D	136	В	186	В
37	C	87	C	137	A	187	C
38	E	88	D	138	A	188	A
39	E	89	D	139	C	189	В
40	D	90	C	140	A	190	C
41	A	91	D	141	В	191	В
42	D	92	С	142	В	192	A
43	A	93	В	143	A	193	A
44	D	94 95	A C	144	D	194 195	A
45	C D	95	В	145	A C		A B
46 47	C	96	D	146 147		196 197	С
48	A	98	E	147	A B	197	
48	D	98	D	148	С	198	A C
50	В	100	D		A		В
30	В	100	μ	150	A	200	В

## **MCQs Animal Production**

No.	Question	Choice	Answer
		a	96°F
1	Temperature of cow suffering from milk fever is:	b	104°F
1		С	107°F
		d	110°F
		a	Jugular and maxillary
		b	Maxillary & coccygeal
2	The pulse rate in goat is taken from the arteries:	С	Coccygeal & Jugular
	F 8	d	Pulmonary & Jugular
		e	None of these
		a	Bacteria
		b	Virus
3	Foot and mouth in cattle is due to infection by:	c	Parasite
3	1 oot and mouth in cattle is due to infection by.	d	Fungus
		e	None of these
			21 days
		a b	18 Hours
4	Mode the estima Coole of a bealthy same		L.
4	Mark the estrus Cycle of a healthy cow:	C	281 days
		d	30 days
		e	None of these
		a	2 to 8 hours
	What is the heat period in buffalo?	b	4 days
5		С	8 to 12 days
		d	12 to 34 days
		e	None of these
	Udder secretion immediately after calving is called:	a	First milk
		b	Special milk
6		С	Colostrum
		d	Calf starter
		e	None of these
		a	Less
		b	Indefinite
7	Scrotal sac temperature of a bull compared to body	С	More
	temperature is :	d	Equal
		e	None of these
		a	10 kg
		b	20 kg
8	Dry matter required by cow of 400 kg body weight	c	2.5 kg
Ü	should be (per day)	d	0.5 kg
		e	None of these
		a	Vitamin B <sub>12</sub>
		b	Protein
9	Pica is caused due to the deficiency of:	С	Phosphorus
J	1 rea is caused due to the deficiency of.	d	Cystine
			None of these
		e	
		a	Suckling
10	Description of a Court in the	b	Knuckling
10	Best method of milking is:	С	Full hand milking
		d	Stripping
		e	None of these
		a	Anthrax
		b	Black quarter
11	Name the disease where carcass must be nitted with lime.	С	Tuberculosis
11	Name the disease where carcass must be pitted with lime:	d	Malaria
		e	None of the above

		0	Voor hard maying
		a	Keep herd moving
12	A	b	Detect heat
	A teaser bull is maintained to:	c	Protect weak animals
		d	Inseminate cow
		e	None of the above
		a	13
		b	25
13	Total solid percentage of cow milk is approximately:	c	0.5
		d	5.0
		e	None of these
		a	13
		b	25
14	Total solid percentage of buffalo milk is approximately:	С	0.5
	Town sond percentage of culture main is approximately.	d	17
		e	None of these
			At the onset of heat
		a	
1.5	Mad do door Class 1 d C	b	Mid of estrus
15	Mark the time of insemination of a cow in heat:	c	Between mid to late of heat
		d	Between late to end of heat
ļ		e	None of these
		a	1100 kg
	Mark the per lactation milk yield of Sahiwal cow.	b	1400 kg
16		c	1800 kg
		d	2000 kg
		e	None of these
	Gestation period in case of buffalo is of:	a	282 days
		b	151 days
17		С	307 days
1 /		d	335 days
			None of these
		e	
		a	Increase specific gravity
1.0	A 11% C	b	Decrease specific gravity
18	Addition of water in milk will:	c	Increase total solids
		d	No change in specific gravity
		e	None of these
		a	50%
19	Flushing can increase the lamb crop by	b	2%
17	1 rushing can increase the famo crop by	c	30%
		d	10-20%
		a	10%
20	Small ruminant contribution towards total meat	b	20%
20	production of the country is	c	33%
		d	50%
		a	Lohi
		b	Salt Range
21	Which one is the fat tail breed of sheep?		
		C	Sipli
<del></del>		d	Kajli
		a	Barseem
22	Which one is the Kharif fodder?	b	Oats
		С	Barley
		d	Sorghum
		a	H.S
23	The most killer disease of sheep and goat is	b	Foot & Mouth
23		С	Rinderpest
		d	Enterotoxemia
L			-t

		0	Orolly
		a b	Orally Intramuscular injection
24	Vaccination in livestock is mostly done by		Intranuscular injection
		С	Subcutaneous injection
		d	10%
		a	40%
25	The total solids %age in goat colostrum is	b	
		c	15%
		d	20%
		a	Subcutaneous fat
26	Marbling in meat is due to deposition of	b	Intramuscular fat
		С	Intermuscular fat
		d	None of these
		a	Cattle
27	Chevon is the meat of	b	Camel
21	Chevon is the illeat of	c	Deer
		d	Goat
		a	Beetal goat
20	Malada da Classa C	b	Sheep
28	Mohair is the fleece of	С	Camel
		d	Angora goat
		a	oxytocin
	If cow gets excited or disturbed at milking time the "Hold-up" of milk occurs, it is due to release of:	b	progesterone
29		С	renine
		d	adrenalin
		e	None of these
		a	Is dry
	A cow can best be judged when she:	b	Has just calved
30		С	Is in full milk production
30	A cow can best be judged when she.	d	5 years old
		-	None of these
		e	
		a b	be long and narrow be wide and extend well up behind
21	The redden of and delimeness should.		
31	The udder of good dairy cow should:	C	round, smooth and hard
		d	pendulous
		e	None of these
		a	Riboflavin
32	Yellow colour of cow milk is due to:	b	Carotene
		c	Casein
		d	Lactose
		a	Reticulum
33	Which part of stomach is fully developed in a sucking	b	Rumen
	calf?	c	Omasum
		d	Abomasum
		a	Cow
34	The maximum lactose content is found in the milk of:	b	Buffalo
J+	The maximum factose content is round in the link of.	c	Goat
		d	Woman
		a	bacteria and viruses
25	Mostitis in settle is des-	b	viruses and worm
35	Mastitis in cattle is due to:	С	fungi and dry milking
		d	worms
		a	Roughage
	A feed high in energy or protein, low in fiber and highly	b	Concentrate
36	digestible is	c	Silage
		d	Hay
		u	1 " J

		0	120 days
	The everges legisless married of miles and in Deliver	a b	120 days 350 days
37	The average lactation period of milch goats in Pakistan		·
	on average it is	С	400 days
		d	305 days
		a	305 days
38	The standard lactation period of milch cattle is	b	320 days
		c	250 days
		d	150 days
		a	Smallpox
39	Name the most common disease transmitted to human	b	Malaria
37	through cow's milk:	c	Tuberculosis
		d	Milk fever
		a	Draft breed
40	Red Sindhi is a:	b	Milch breed
40	Red Silidili Is a.	С	Dual purpose breed
		d	None of them
		a	Ist day of birth
		b	One week age
41	Mark the age of marking a calf for identification.	c	2 weeks age
		d	3 weeks age
		e	None of these
		a	10
		b	20
42	Mark the total number of all temporary teeth in both jaws of a cow.	c	32
42		d	50
			None of these
		e	2 months
	Mark the optimum age for castration of male calves by bloodless castration method.	a	
40		b	2 to 3 months
43		c	3 to 4 months
	<u> </u>	d	4 to 6 months
		e	None of these
		a	Sterilization
	<u>_</u>	b	teaser
44	Castration in female calves is called:	c	vasectomization
	<u> </u>	d	spaying
		e	None of these
	<u> </u>	a	15 months
		b	18 months
45	Approx. age of sexual maturity of buffalo bull is:	c	20 months
	[	d	22 months
		e	None of these
		a	10-20
	Mad the section and the section of t	b	20-30
46	Mark the optimum dry matter %age in green maize for	c	30-40
	silage making:	d	40-50
		e	None of these
		a	3.5-4.2
		b	4.2-4.5
47	Mark the pH of good silage:	c	4.5-4.8
7/	wank the pit of good shage.	d	Above 4.8
	-		None of these
		e	
		<u>a</u>	18%
40	Mod do no modernica de Cala de Cala	b	25%
48	Mark the max. moisture in fodder stored as hay:	c	30%
		d e	40%
			None of these

			2001
	One livestock unit is equal to body weight of:	<u>a</u>	300 kg
4.0		b	400 kg
49		С	500 kg
		d	600 kg
		e	None of these
		a	8 cows
	Under hand mathed of millsing good millson at a start-t-	b	12 cows
50	Under hand method of milking good milker at a stretch	С	18 cows
	can efficiently milk:	d	22 cows
		e	None of these
		a	Estrogen
		b	Oxytocin
51	Which 'hormone' causes milk ejection?	С	Thyroxin
		d	Parathormone
		a	50%
	In a mixed farm, the minimum contribution to total	<u>u</u> b	40%
52	income from animals should be:	c	20%
	meome from animals should be.	d	10%
			30
		a b	27
53	What is the number of pairs of chromosome in goat?	<u>b</u>	23
		C	
		d	21
	What is the best basis for selection of bull calves for breeding?	a	Birth weight of male
54		b	body conformation
		c	Dam's milk yield
		d	None of above
	Mule is an example of:	a	Close breeding
55		b	Line breeding
33		c	Hybridization
		d	Out crossing
		a	One kilogram of concentrate for
			each half litre of milk
		b	One kilogram of concentrates for
56	Which one of the following correctly represents the		each litre of milk
30	thumb rule for feeding of buffaloes?	С	One kilogram of concentrate for
			each three litres of milk
		d	One kilogram of concentrates for
			each two and half litres of milk.
		a	Bull
-7	Wilch and of the falls for the 11 and 1 of 1 of	b	Suckling calves
57	Which one of the following should not be fed urea?	c	Heifer
		d	Cow
		a	Stomach
	Name the organ where microbial digestion in non-	b	Small intestine
58	ruminant animals occurs:	c	Large intestine
		d	None of the above
		a	Rich in Ca
		a	Rich in P
59	Cereal grains by products are:		
		C	Low in P and rich in Ca
		d	Rich in P and low in Ca
	Han much will should be fellowed to the collection	a 1-	Half body weight
60	How much milk should be fed per day to a calf during	b	1/4 body weight
	second week?	c	1/8 body weight
		d	1/10 body weight
		a	Three
61	How many crossbred cows can be maintained on the	b	Five
01	green fodder available from one hectare of land?	c	Seven
		d	Ten

		a	Pyometra
	Thick yellowish discharge from the vagina of cow	b	Heat cycle
62	indicates:	c	Mastitis
	marcates.	d	Vaginitis.
		a	Embryo transfer
	For getting advantage from the male and female	b	Artificial insemination
63	genotypes, which practice should be adopted?	c	Synchronisation of estrus
	genotypes, which practice should be adopted:	d	Natural mating
			<u> </u>
	-	a	307 days
64	Gestation period of goat is:	b	145 days
		С	270 days
		d	60 days
	N   1   1   1   1   1   1   1   1   1	a	Antibiotic
65	Medicines which check the growth of micro-organisms	b	Antiseptic
	but do not kill are known as:	c	Purgative
		d	Anthelmentic.
	_	a	10-20 days
66	The duration of passive acquired immunity is:	b	20-30 days
00	The datation of passive acquired infinituitty is.	c	30-40 days
		d	40-50 days
_	Indicate the period during which the intestinal mucosa of	a	upto few hours after birth
67	the new born animal is able to absorb antibody globulin of colostrums:	b	upto 48 hours after birth
07		c	upto 96 hours after birth
		d	upto 144 hours after birth
	The most suitable time for vaccination against H.S is:	a	October
60		b	December
68		С	Just before monsoon
		d	February
		a	Rinderpest
	In which disease swelling in the neck and throat region is	b	Anthrax
69	noticed?	С	Bloat
		d	Haemorrhagic septicaemia.
		a	Impaction of rumen
		b	Primary ruminal tympany
70	Anti-foaming agents are used in the treatment of:	c	Secondary ruminal tympany
		d	None of the above
		a	1.55
		b	2.55
71	What is the casein percentage in milk of Sahiwal cow?	c	3.55
		d	4.55
		a	Allbumin
		b	Globulin
72	Which is the unit for measuring the viscosity of milk?		Casein
		C d	None of the above
		d	
		a	Mare
73	The milk fat percentage is highest in which of the	b	Buffalo
	following animals?	c	Goat
		d	Cow
		a	Fat
74	Which constituent affects freezing point of milk?	b	Protein
	point of make.	c	Lactose
		d	None of the above
		a	12.5%
75	The total solids content of cow milk is approximately:	b	14.5%
13	The total solids content of cow milk is approximately:	c	15.3%
			10.2%

		9	8.0
	What is the Legal Standard for S. N. E. W. of huffele	a b	8.5
76	What is the Legal Standard for S. N. F % of buffalo milk?	c	9.0
	IIIIK!	d	9.5
		a	50 C
77	At what temperature the Gerber Butyrometer should be	b	65 C
	kept in hot water bath for determination of milk fat?	c	70 C
		d	75C
		a	Lactose
78	Indicate the nitrogenous substance in mills	b	Uric acid
70	Indicate the nitrogenous substance in milk:	С	Cholesterol
		d	Carotene.
		a	Secretary phase
	In which portion of milk from udder bacteria content is	b	Fore milk
79	highest?	c	Mid milk
	ingliest.	d	Stripping
			To carry milk from different
		a	
		1.	quarter of udder
00	Will all a control of the control of	b	To supply blood from heart to
80	What is the function of milk veins?		udder
		c	To carry blood from udder
			towards the heart
		d	None of the above
		a	200g
	Mark the desirable gain per day of healthy growing calf:	b	300 g
81		С	400 g
		d	500 g
		e	None of these.
		a	87%
		b	13%
82	Water percentage of cow milk is approximately:	c	75%
02	water percentage of cow mink is approximatery.	d	50 %
	-		None of these
		e	
		a	21 days
0.2	N   1   1   1   1   1   1   1   1   1	b	22 hours
83	Mark the heat period of a healthy goat:	c	16 hours
		d	38 hours
		e	None of these
		a	20-24 months
		b	24-30 months
84	Mark the age at first calving of a crossbred heifer	c	36-40 months
		d	3-4 years
		e	None of these
		a	Vulva
		b	Vagina
85	Mark the best place of insemination of a buffalo in heat	c	Cervix
0.5	and dest place of instrumenton of a bullato in near	d	Dioestrum
	<del> </del>	e	None of these
	+		5 to 6 years
		a b	·
06	Control main of impigar in pattle start and in 1884	<u>b</u>	6 to 7 years
86	Central pair of incisor in cattle start wearing off at:	c	7 to 8 years
		d	8 to 9 years
		e	None of these.
		a	60-70
		b	42-60
87	Mark the normal pulse rate per minute of a bullock:	С	98.6
	·	d	100
		e	None of these
<u> </u>		Е	TAOHE OF THESE

	T	-	Cow
		a	Cow Buffalo
88	Whether is the castrated animal of:	b	
	whether is the castrated animal of:	C	Sheep
		d	Goat None of these
		e	
	_	a	7 minutes
0.0	Milking of cow yielding 15 kg milk/day should be	b	10 minutes
89	completed within:	c	12 minutes
	_	d	15 minutes
		e	None of these
	_	a	36.6 C
0.0	Mark the temperature suitable for normal	b	39 F
90	spermatogenesis in bull:	c	42.6 F
		d	52.6 C
		e	None of these
	_	a	Steer
	_	b	Teaser
91	A vasectomized male is called:	c	Stag
		d	Bullock
		e	None of these
		a	Cobalt chloride
		b	Iron Sulphate
92	Which of the salt in mineral mix of cow prevents goiter:	С	Pot. Iodide
		d	Sodium chloride
		e	None of these
		a	Wet hand with water
	Best method of milking of cow is by:	b	Dry hand
93		С	Wet hand with oil
		d	Wet hand with milk froth
		e	None of these
		a	Less
		b	More
94	Body temperature of bull as compared to scrotal temp is:	c	Same
		d	Normal
		e	None of these
		a	Milk daily
	Best method of recording milk for true picture is to	b	Milk weekly
95	record:	С	Certain days in a week
		d	Milk and feed weekly
		e	None of these
		a	12.5 kg
_	Dry matter per day needed by a buffalo of 500 kg body	b	15 kg
96	wt. should be:	С	20 kg
		d	25 kg
		e	None of these
		a	1 to 1.5
	For every kg of milk produced the water needed by the	b	2 to 2.5
97	cow is:	c	3 to 3.5
		d	4 to 4.5
		e	None of these
		a	10 m
		b	11.5 m
98	Width of a double row system (tail to tail barn) is:	c	12.5 m
		d	15.4 m
		e	None of these

		9	20	
99		a b	30	
	A double row dairy shed of 24.6 m x 11.54 m (L x W)	c	40	
77	can house cows		50	
		d	None of these	
		e	None of these Globulin	
		a		
100		b	Casein	
100	A constituent found in milk and blood both is:	C	Albumen	
		d	Minerals	
		e	None of these	
			High in calcium	
		b	High in phosphorus and low in	
101	Parturient paresis can be prevented by feeding a diet		calcium	
	prepartum:	c	High in calcium and low in	
			phosphorus	
		d	More salt in diet	
		a Intravenous calcium		
102	Heamoglobinuria in buffaloes can be treated more	b	Sodium acid phosphate	
	effectively by:	С	Antifibrinolytic drugs	
		d	Dextrose saline	
	H. S. occurs in the severe from in:	a	Cattle and buffalo	
103		b	Horse and mules	
103		c	Dogs and cats	
		d	Pigs and rodents.	
		a	Immediately	
104	In domestic animals the fertilized egg reaches the uterus:	b	1 to 2 days after fertilization	
104		c	3 to 5 days after fertilization	
		d	6 to 8 days after fertilization	
		a	Salmonella	
105	Infection transmitted to human through milk is:	b	Lesteria	
103		c	Clostridium	
		d	Both A and B	
		a	Bacillus	
106	The thermophillic hacteria in raw milk are:	b	lactobacillus	
100	The thermophillic bacteria in raw milk are:	c	Staphylococcus	
		d	None of these	
		a	18.5 %	
107	The protein content of Mutton is:	b	23.0 %	
107	The protein content of Mutton is.	c	21.4%	
		d	24.0%	
		a	6 to 12 hours	
108	The fortile life of equilated having ages in	b	20 to 40 hours	
108	The fertile life of ovulated bovine eggs is:	c	30 to 48 hours	
		d	48 to 72 hours	
		a	Lung	
100	Most of the almost in the animal bada is account.	b	Spleen	
109	Most of the glycogen in the animal body is present in:	С	Liver	
		d	Heart	
		a	Odour	
110	Oxidative rancidity during frozen storage of meat	b	Flavor	
110	gradually decreases:	c	Taste	
	Branding decreases.	d	Both A and B	
		a	Rectal Examination	
		b	Progesterone Assay	
111	The earliest pregnancy diagnosis test for bovine is:	c	Ultrasound	
		d	Radiography	
	<u> </u>	u	Taurography	

			X7'4	
		a	Vitamin A	
112	Beta carotene is the source of:	b	Vitamin C	
		С	Riboflavin	
		d	Niacin	
		a	Angora	
113	Which goat is reared for Mohair?	b	Teddy	
113		c	Beetal	
		d	Jamnapari	
		a	Lactation length and gestation	
			length	
114	Calving interval is the total sum of:	b	Gestation length and dry days	
		c	Service period and gestation days	
		d	Open days and dry days	
		a	Phenol	
115	A common but effective disinfectant for water trough of	b	Potassium permanganate	
113	cattle farm is:	c	Lime	
		d	Washing soda	
		a	5 to 7 kg	
116	The daily dry matter requirement of cattle per 100 Kg	b	3.5 to 4.5 Kg	
116	body weight is:	С	2 to 2.5 Kg	
		d	1 to 1.5 Kg	
		a	14 to 15 % DCP and 50 % TDN	
		b	50 % DCP and 10 % TDN	
117	Lucern hay contains;	С	30% DCP and 31 % TDN	
		d	20 % DCP and 30 % TDN	
	Most essential vaccination in goats is:	a	Foot and mouth disease	
		b	Pox	
118		c	Enterotoxemia	
		d	Rinderpest	
		a	Carbohydrates	
		b	Fat	
119	Bone meal is a good source of:	c	Phosphrous	
		d	Calcium and phosphorus	
		a	Caustic potash stick	
	The most appropriate method of dehorning (debudding)	b	Surgical removal	
120	calves is:	c	Electric dehorner	
	carves is.	d	None of these	
		a	1100 kg	
	Mark the minimum milk production of Sahiwal breed in a	<u>a</u> b	1400 kg	
121	lactation of 300 days as requirement for registration in	c	1900 kg	
121	central herd book.	d	2000 kg	
	Contrar nord book.		None of these	
		e	Ist day of birth	
		<u>а</u> b	One week age	
122	Mark the egg of marking a self for identification		2 weeks age	
122	Mark the age of marking a calf for identification.	C d	3 weeks age	
		d	None of these	
		e	None of these	
		a b	20	
102	Mark the total number of all temporary teeth in both jaws	<u>b</u>	32	
123	of a cow.	C	50	
		d		
		e	None of these	
		<u>a</u>	2 months	
104	Mark the optimum age for castration of male calves by	b	2 to 3 months	
124	bloodless castration method.	С	3 to 4 months	
		d	4 to 6 months	
		e	None of these	

	I I		I a
	_	a Sterilizatio	
		b	teaser
125	Castration in female calves is called:	С	vasectomization
		d	spaying
		e	None of these
		a	15 months
		b	18 months
126	Approx. age of sexual maturity of buffalo bull is:	c	20 months
		d	22 months
		e	None of these
		a	5 hr
		b	7 hr
127	Mark the ovulation time after onset of heat in buffaloes:	С	10 hr
		d	13 hr
		e	None of these
		a	1.0-1.5 years
		b	1.5-2.0 years
128	Breeding age (years) of a crossbred heifer having attained	c	2.0-2.5 years
	250 kg body weight is:	d	2.5-3 years
		e	None of these
		a	.2 %
		b	.3 %
129	The control ectoparasites in growing calves spraying may be done with BHC solution of:	c	.4 %
12)		d	0.5 %
		e	None of these
		a	3 months
		b	4 months
130	At what age of heifers you would suggest vaccination for Rinderpest, T.B. and FMD		10 months
130		c d	6 months
			None of these
		e	250 days
	-	a	310 days
131	Mark the optimum calving interval for the high level of	<u>b</u>	
131	breeding efficiency in cows:	С	395 days 450 days
		d	
		e	None of these
		a	2-3 %
122	In general low percentage of infertility occurs in younger	b	3-4 %
132	animals but increase in case of older cows which is	c	4-5 %
	approximately:	d	5-6 %
		e	None of these
		a	10-20
100	Mark the optimum dry matter %age in green maize for	b	20-30
133	silage making:	c	30-40
		d	40-50
		e	None of these
		a	3.5-4.2
4.5.		b	4.2-4.5
134	Mark the pH of good silage:	c	4.5-4.8
		d	Above 4.8
		e	None of these
		a	18 %
		b	25 %
135	Mark the max. moisture in fodder stored as hay:	c	30 %
		d	40%
		e	None of these

	<del></del>			
		a	300 kg	
		b	400 kg	
136	One livestock unit is equal to body weight of:	c	500 kg	
		d	600 kg	
		e	None of these	
		a	3 days	
	Mark the age of calf when calf starter can be fed in gruel form:	b	2 weeks	
1 13/		c	4 weeks	
		d	4.36 weeks	
		e	None of these	
		a	240 C	
	Mark the temperature of electrical dehorner used for	b	340 C	
	disbudding:	c	440 C	
	disoudding.	d	540 C	
	<u>                                     </u>	e	None of these	
		a	22.5 m <sup>3</sup>	
	Mark the air space for cow sufficient to provide enough	b	33.5 m <sup>3</sup>	
1 1 1 9	ventilation:	c	44.5 m <sup>2</sup>	
	ventuation.	d	55.6 m <sup>3</sup>	
		e	None of these	
		a	1 year 9 months	
	Mark the age of crossbrad beifer when central pair of	b	2 year 3 months	
	Mark the age of crossbred heifer when central pair of permanent incisor erupts.	c	2 year 9 months	
		d	3 year 3 months	
		e	none of these	
		a	90-95	
	Mark the minimum score points of a dairy cow judged on type and appearance by score card method:	b	85-90	
		c	80-85	
		d	80-70	
		e	60-50	
		a	14.6 m	
	Mark the length of tail to tail, face to face barn (including	b	24.6 m	
	walls) for 40 crossbred cows:	c	34.6 m	
	walls) for 40 crossored cows:	d	48 m	
		e	None of these	
		a	5.54 m	
	Mark the width (including walls) of a tail to tail barn for	b	10 m	
	keeping 50 crossbred cows:	c	11.54 m	
	keeping 50 crossored cows.	d	24.6 m	
		e	None of these	
		a	Continuous	
	The best kind of manager is made oftith	b	Partitioned	
	The best kind of manger is made of cement with corners rounded and is:	С	Covered	
	Tourided and 18.	d	Open	
		e	None of these	
		a	1.2 x 1.5 m	
		b	1.5 x 1.7 m	
145	Mark the size of stanchion stall per cow:	С	1.5 x 2.0 m	
	-	d	2 x 2.5 m	
		e	None of these	
		a	8 cows	
	Made had mathed of million and beilt or as a	b	12 cows	
	Under hand method of milking good milker at a stretch can efficiently milk:	С	18 cows	
140				
140	can efficiently milk:	d	22 cows	

		a	Oxytocin	
	If your make assisted on disturbed at million time the	b	b Progesterone c Renine d Adrenalin e None of these a His size b His type c His masculinity d His dam e None of these a Pedigree b Conformation c Disposition d Breed e None of these	
147	If cow gets excited or disturbed at milking time the	С		
	"Hold-up" of milk occurs, it is due to release of:	d	Adrenalin	
		e	None of these	
		a	His size	
	Mad the second in a second for the second in	b	His type	
148	Mark the most important factor to consider in selection of	С	His masculinity	
	bull:	d	His dam	
		e	None of these	
		a	Pedigree	
		b	Conformation	
149	The best and only basis for selecting the young untried	С	Disposition	
	bull is by:	d		
		e	None of these	
		a	is dry	
		b	has just calved	
150	A cow can best be judged when she:	С	is in full milk production	
		d	5 years old	
		e	None of these	

**Keys MCQs Animal Production** 

No.	Answer	No.	Answer	No.	Answer
1	A	51	В	101	С
2	A	52	D	102	С
3	В	53	A	103	A
4	A	54	С	104	D
5	Е	55	С	105	A
6	С	56	D	106	A
7	A	57	В	107	A
8	A	58	С	108	A
9	С	59	С	109	С
10	С	60	D	110	D
11	A	61	A	111	В
12	В	62	A	112	A
13	A	63	A	113	A
14	D	64	В	114	С
15	С	65	A	115	В
16	С	66	A	116	С
17	С	67	A	117	A
18	В	68	С	118	С
19	D	69	D	119	D
20	С	70	A	120	A
21	В	71	В	121	С
22	D	72	С	122	A
23	D	73	В	123	В
24	D	74	A	124	D
25	D	75	A	125	D
26	В	76	В	126	D
27	D	77	В	127	В
28	D	78	В	128	В
29	D	79	В	129	D
30	С	80	С	130	D
31	В	81	D	131	С
32	В	82	A	132	D
33	D	83	D	133	С
34	D	84	В	134	В
35	A	85	С	135	A
36	В	86	С	136	С
37	A	87	A	137	В
38	A	88	С	138	D
39	С	89	A	139	A
40	В	90	A	140	A
41	A	91	В	141	D
42	В	92	С	142	В
43	D	93	В	143	С
44	D	94	В	144	В
45	D	95	A	145	A
46	C	96	В	146	В
47	В	97	С	147	D
48	A	98	В	148	D
49	C	99	С	149	A
50	В	100	A	150	С

# **Veterinary Clinical Medicine and Surgery**

# **CMS Section A: Medicine**

No.	Question	Choice	Answer
	The dwg of chains for the treatment of hebosics in	a	Imidocarb dipropionate
1	The drug of choice for the treatment of babesiosis in crossbred cattle is:	b	Ciprofloxacin
1	crossored cattle is.	c	Oxytetracycline
		d	Metronidazole
		a	Staphylococcus aureus
2	Which of the following organisms gain access to bovine	b	E. coli
2	udder during milking?	С	Pseudomonas
		d	Klebsiella
		a	Lips
2	Impetigo is a superficial pustular dermatitis that usually	b	Ears
3	begins on the	С	Udder
		d	Back
		a	intermittent fever and edema of ventral
			abdomen and legs.
		b	Sever, persistent, bloody diarrhea
4	Signs of equine infectious anemia include:	С	frequent urination, and urine containing
			large quantities of blood
		d	bleeding from the body orifices
	Surf Field Mastitis Test (a screening test) to assess the	a	Primary prevention
_	leukocyte-count in milk and treatment to remove the	b	Secondary prevention
5	organism from the infected udder before the signs of	c	Eradication
	mastitis develop is an example of:	d	Vector control
	r	a	Burkholderia mallei
	Equine glanders is caused by:	b	Burkholderia psudomallei
6		c	Burkoldera capaciae
		d	Burkholderia tialendesis
		a	squamous cell carcinoma
	What of the following is the most common skin tumor	b	viral papilomatosis
7	affecting horses?	С	basal cell carcinoma
	arceting noises.	d	Melanoma
		a	Sub-occipital puncture
		b	Lumbo-sacral puncture
8	The best site for collection of CSF in canine is	c	Sacro-coccygeal puncture
		d	Thoraco-lumber puncture
		a	Y-U pyloroplasty
		b	U-V pyloroplasty
9	Congenital pyloric stenosis can be treated by	c	U-U pyloroplasty
		d	Y-Y pyloroplasty
		a	Ranula
	The term used to describe a salivary mucocoele located	b	Lingnoma
10	ventral to the tongue is:	С	Cyst
	rendar to the tongue is.	d	Cavity
<del>                                     </del>			Increase in the vascular bed
		a b	Decrease in effective volume of blood
		0	in circulation
11	The essential phenomena in shock are:	c	Imbalance between vascular bed and
			effective volume of blood in circulation
	-	d	None of the above
		-	
	At which port of the assembleaus sheling west	a b	upper third middle third
12	At which part of the oesophagus choking most		lower third
	commonly occurs in cattle	C	
		d	gastro-oesophagial junction

	The drug of choice in paracetamol (acetaminophen) toxicity is	a	Adrenaline
13		b	N-acetylecystien
13		c	Dexamethasone
		d	Physostigmine
		a	Dog
1.4	Which of the following animal species has the lowest	b	Cattle
14	temperature in the morning?	С	Camel
		d	Goat
		a	holding of tongue
		b	slow drenching
15	Which of the following is contraindicated while	c	moderate upward lifting of head
10	drenching a cow	d	adding a slightly bitter medicine to
		u	liquid to be drench
		a	ingestion of soil
		b	eating of feces
16	Coprophagia means:		eating of reces
		d d	
			eat nothing
		a	Three day sickness
17	Bovine Ephemeral fever is also known as:	b	Parturient paresis
	r	c	Monday morning disease
		d	Dandy-walker syndrome
	Clinical signs such as vesicle on lips, muzzle, dental	a	FMD
18	pad, tongue, gingavae, interdigical spaces, and teats, and	b	BVD
10	reluctant to eat and walk are common in cows/buffaloes	c	IBR
	with:	d	MDC
	Which of the following organism gain access to bovine udder during milking?	a	Staphylococcus aureus
10		b	E. coli
19		С	Pseudomonas
		d	Klebsiella
		a	3-7 days
		b	2-11 days
20	Incubation period of cow pox is:	c	21-27 days
		d	2-14 days
		a	Ketosis
	The <i>most likely</i> diagnosis for paresis immediately	b	Hypomagnesemia
21	following calving in a Nilli Ravi buffalo is:	c	Milk fever
	Tollowing carving in a runn Ravi burialo is.	d	Endotoxaemia
	Comment of the fellowing and the fellowing	a	CPK AST
22	Serum elevation of the following enzyme is <i>good</i>	b	
	indication of active muscle damage:	c	ALT
		d	AP
	Which of the following antimicrobial is effective against	a	Penicillin
23	betalactamase producing anaerobic bacteria?	b	Cephalexin
-3	producing andersore outteria.	c	Ceftiofur
		d	Metronidazole
		a	Virulence
24	The capacity of an agent to cause disease in a	b	Pathogenicity
Z4	susceptible host define its:	c	Infectivity
	•	d	Aggressivness
		a	Peracute black leg.
25	Differential diagnosis of anthrax include the following	b	Malignant edema
25	except:	С	Lightening stroke
	······ <b>x</b> ···	d	BSE
	1	-	1

			1
		<u>a</u>	correct disposal of carcass.
		b	correct disinfection, decontamination
	Concerning control of anthrax, following measures must be implemented <i>except</i> :		and disposal of contaminated materials.
		c	vaccination of exposed susceptible
26			animals and human in at risk
			occupation.
		d	bathing of healthy animals with a
			mixture of 1% formaldehyde and 3%
			glutaraldehyde.
		a	Leptospirosis
27	Which of the following is an infectious but not a	b	Tetanus
27	contagious disease?	c	Brucellosis
		d	Mucosal disease complex
		a	Sarcoptes
		b	Psoroptes
28	Mange in dogs is caused by:	c	Chorioptes
		d	Demodex
		a	Can be frozen for up to 1 year.
	+	b	Can be stored at 39.2 F - 50 F (4 C - 10
	A	U	C) for up to 3 weeks
29	A correct statement about the proper storage of whole blood is that it:		Should be stored above 122 F (50 C).
	blood is that it:	c	` '
		d	Does not need refrigeration for the first
			week of storage
		a	1500 IU
30	In treating wounds of horses a prophylactic dose of antitetanus serum is:	b	1500 to 3000 IU
		c	3000 to 4000 IU
		d	all above
	DVDD: 1 id d	a	1:2:8
21		b	2:1:8
31	BIPP is used with the concentration of:	С	8:1:2
		d	all above
		a	purposeless multiplication of living cells
	l	b	purposeful multiplication of living cells
32	A tumour is caused by:	c	purposeful restrictrion of living cells
		d	all above
		a	Invention of X-ray Machine
	The discovery that enabled W. C. Roentgen in getting	b	Discovery of X-rays
33			· ·
	first Nobel Prize in physics is:	С	Floroscopy None of above
		d	
		a	Liquid nitrogen
34	The most common cryogenic agent used in veterinary	b	Dry ice
	medicine is	c	Freon
		d	Nitrous oxide
		a	1500 IU
35	In treating wounds of horses a prophylactic dose of anti-	b	1500 to 3000 IU
	tetanus serum is:	c	3000 to 4000 IU
		d	all above
		a	fly repellent
26	DIDD: 1 C	b	antiseptic
36	BIPP is used for :	c	dessicant
		d	all above
		a	1:2:8
		b	2:1:8
37	BIPP is used with the concentration of :	c	8:1:2
		d	all above
		u	an above

			1 4 11 1 4 .
		a	hot liquids
38	A scald is an injury caused by:	b	steam
		c	both above
		d	none of the above
		a	coma
39	Strong electric current passing through the animal body	b	death
	may cause:	С	both above
		d	none of the above
		a	dog
40	Heat stroke is more commonly seen in:	b	horses
	11010 501 510 15 111010 COMMISSING SCOTT 111 1	c	dog and horses
		d	none of the above
		a	pharynx is dorsal to the esophagus
41	When intubating an animal, it is essential to remember	b	trachea is ventral to the esophagus
71	that the:	c	esophagus is lateral to the pharynx
		d	trachea is ventral to the pharynx
		a	Continuing losses
42	Fluid losses through vomiting, diarrhea etc. are called	b	Insensible losses
42	as:	c	Pathological losses
		d	Sensible losses
		a	Insensible losses
40	Fluid losses through sweating and respiration are termed	b	Sensible losses
43	as:	С	Permanent losses
		d	Physiological losses
	Which one of the following is not a cause of acquired	a	Tumors
	megaesophagus in dogs?	b	Strictures
44	6I	c	Heavy metal poisoning
		d	Hirschprung's diseases
		a	Three day sickness
	Bovine Ephemeral fever is also known as:	b	Parturient paresis
45		c	Monday morning disease
		d	Dandy-walker syndrome
		a	Pasteurella multocida type E
	Haemorrhagic septicemia (HS) in buffaloes is caused by:	b	Pasteurella multocida type B
46		c	Pasteurella multocida type C
	oj.	d	Pasterulla multocida type O
		a	Trichuris vulpis
		b	Isospora felis
47	Which of the following is an example of cestodes?	c	Ancylostoma caninum
		d	Diphylidium caninum
			Give as required
	Commonly used abbreviation in prescription writing	<u>a</u> b	Give thrice a day
48	'BID' means		Give twice a day
	DID IIICALIS	c	
		d	Mix well before giving
		a	Transverse colon
49	An enlarged dilated colon is termed as:	<u>b</u>	Megacolon  Cyclic color
		С	Cystic colon
		d	Enterocolon
		a	WBC, RBC, HB, HCT, and DLC
50	A normalista bland and ordered the	b	RBC, WBC, Total solids, and clotting
50	A complete blood count include:		time
		c	WBC, DLC, and clot retraction time
		d	WBC, DLC, and BUN
		a	Pink
51	The color of icteric serum is:	b	Red
		c	Yellow
		d	Pale

			Daniallin C
		a	Penicllin G
52	Which antibiotic is the best treatment for canine	b	Erythromycin
	ehrlichiosis?	С	Ceftiofur
		d	Doxycycline
		a	endotoxin is the lipopolysacchride cell
			wall component of Gram negative
			bacteria
		b	lipopolysacchride is relased
	Concerning endotoxins, which statement is least		continuously from Gram negative
53	accurate?		bacteria
	accurate:	c	Endotoxins can trigger shock, DIC, and
			MOD
		d	Endotoxin core structure (Lipid A) are
			similar through out wide range of Gram
			negative bacteria
		a	spinal cord injuries
		b	cranial surgery
54	Mannitol is indicated in the following condition except:	С	brain tumors
		d	head injuries
		a	vincristine sulphate
	Treatment of choice for transmissible canine venereal	b	Adriamycin
55	tumor is:		Cyclophosphamide
	tullor is.	c d	Vinblastine
		a	iron and copper deficiency
56	Major cause of hypochromic microcytic anemia is:	b	thiamine and manganese
	g	С	selenium and folic acid
		d	folic acid and B <sub>12 deficiency</sub>
	A month old rotweiller pup is presented to you with	a	Canine parvovirus infection
57	protracted vomiting, dehydration, bloody diarrhea of a	b	Garbage poisoning
37	day old standing. Vaccination status of the pup was not	c	Canine hepatitis
	current. Your most likely diagnosis is:	d	Canine herpes virus infection
		a	Magnetic resonance imaging
<b>50</b>	MDI ( 1 C	b	Magnetic required imaging
58	MRI stands for:	С	Magnetic resonance isolation
		d	None above
		a	clinical practical performance
59	CPR stands for:	b	cardiac pulse recovery
		c	cardiopulmonary resuscitation
		a	Piroplasmosis
	Hemoglobinuria occurs in all of the following diseases	b	bacillary hemoglobinuria
60	of animals except:		post-parturient hemoglobinuria
	of annuals except.	c d	black quarters
		-	
		a	canine distemper
61	Inclusion bodies are found in RBCs in:	b	canine hepatitis
		c	canine parvo
		d	rabies
		a	Riboflavin
62	A deficiency of which of the following vitamins most	b	Niacin
02	likely would cause central nervous sings in the cats?	c	Thiamine
		d	Pantothenic acid
		a	vesicular sound
62	Which respiratory sound can normally be detected	b	wheezes
63	without a stethoscope?	С	Stridors
		d	Crackles
		a	prednisolone
	Canine and feline esophagitis is most appropriately	b	atropine
64	treated with;	c	cimetidine
	, , ,	d	salicylates
		u	50110 1 10100

			T
		a	Leptocytes
65	Which of the following cells are diagnostic hallmark of	b	Spherocytes
	immune-mediated hemolytic anemia?	c	Histiocytes
		d	Schizocytes
	A 7 year old male German Shephard is presented to you	a	hepatic lymphoscarcoma
	for jaundice, and ascities. Laboratory investigations	b	carcinomatosis
66	reveled: SGPT (ALT) 792 mg/dL; SAP, 1500mg/dL;	c	liver lobe torsion
	Total Bilirubin 9mg/dL; Albumin, 1.6 mg/dL; globulin,	d	hepatic cirrhosis
	4.9 mg/dL; the most likely diagnosis is:		
		a	Vitamin A
67	Which of the following vitamins is associated with	b	Vitamin C
	coagulation of blood?	c	Vitamin D
		d	Vitamin K
		a	Brucella ovis
68	Brucellosis in cattle is caused primarily by:	b	Brucella melitensis
	printing by	c	Brucella abortus
		d	Brucella suis
		a	purchase of infected animals
69	Johne's disease (paratuberculosis) is usually spread	b	flying vectors
0,	among herds by:	c	Fomities
		d	contaminated stream
		a	Phosphate
70	The most common type of urinary calculi found in	b	Silicate
/0	bovine are:	c	Sulfate
		d	Carbonate
		a	Pyrantel pamoate
71	Hook worm infection in cat and dogs is primarily	b	Dichlorvos
/ 1	treated with:	c	Disophenol
		d	Fenbendazole
		a	Cryptococcal respiratory infection
72	Obstructive pulmonary disease is also referred as	b	Aspiration pneumonia
12	Obstructive pullifoliary disease is also referred as	c	Smoke inhalation injury
		d	Chronic alveolar emphysema
		a	Five forms
73	African Horse Sickness is of	b	Three forms
13	Affical fluise Sickliess is of		Four forms
		d	One form
		a	Vaccination
74	Countries free of Rabies maintain this status by	b	Quarantine
/4	Countries free of Rables maintain this status by	c	a and b
		d	None
		a	Tetanospasmin
		b	Interaction between tetanospasmin and
75	Clinical signs of Tetnus developed by		nervous tissue
		c	Damage to nervous tissue
<u> </u>		d	Tetanolysin
		a	Anoplocephala species
76	Major lungworms of the horse is	b	Gastrophilus species
76	Major lungworms of the horse is	с	Parascaris equorum
		d	Dictyocaulus arnfieldi
		a	Diminazine
77	Days of shoise in Helman and in 1	b	Ivermectin
77	Drug of choice in Habronemiasis in horses	c	Suramin
		d	Imidocarb
		a	Pseudomonas mallei
70	Mall to the constate of the	b	Pseudomonas pseudomallei
78	Mallein is a protein produced by	c	Pseudomonas aeruginosa
		d	a and b

		a	Equine viral arteritis
79	Equine distemper is also referred as	b	Glanders
'	Equite distemper is also referred as	С	Strangles
		d	Equine influenza
		a	Equine abortion virus
80	Equine herpes virus infection is also termed as	b	Equine arteritis
80	Equine herpes virus infection is also termed as	c	Equine rhinopneumonitis
		d	None of above
		a	Three routes
81	In horses totanus tovin is distributed by	b	Two routes
01	In horses tetanus toxin is distributed by	С	Four routes
		d	Multiple routes
		a	Streptococcus species
0.0		b	Staphlococcus species
82	Pyogenic dermatitis in horses is caused by	С	Pseudomonas species
		d	Salmonella species
		a	Diagnosis
		b	History
83	Determination of seat and nature of disease is known as	c	Clinical examination
		d	Physical examination
		a	Recovery
		b	Prognosis
84	Probable out come of a disease is known for	c	Tentative diagnosis
			Sequelae Sequelae
		d	Symptomatic treatment
	The treatment directed towards the cause of a disease is known as	a b	v 1
85			Supportive treatment
	Kilowii as	С	Treatment complication
		d	Specific treatment
	Measures to prevent the spread of a disease when it	a	Empirical treatment
86		b	Metaphylactic treatment
	likely to develop in animals known as	С	Non specific treatment
		d	Prophylactic treatm
		a	Endotoxin
87	Horse shoe crab amebocytes test is used for	b	Bacteria
	determination of	c	Virus
		d	Uric acid
		a	gonadal tissue
		b	Skin
88	X-rays have their greatest harmful effects upon:	c	Liver
		d	Lung
		e	Bone
		a	Specific treatment
89	The treatment that helps the immune system to combat	b	Symptomatic treatment
07	with disease is known as		Supportive treatment
		d	complication treatment
	In annual amorphism have deliced and the second	a	3 wks
90	In general, superficial bacterial pyoderma in dogs	b	6 wks
	require systemic antibiotics therapy for minimum of:	С	8 wks

**CMS Key Section A: Medicine** 

No.	Answer								
1	A	19	A	37	A	55	A	73	С
2	A	20	A	38	С	56	A	74	В
3	С	21	С	39	С	57	A	75	В
4	A	22	В	40	С	58	A	76	D
5	В	23	D	41	В	59	С	77	В
6	A	24	В	42	D	60	D	78	A
7	D	25	D	43	A	61	A	79	С
8	В	26	D	44	D	62	С	80	A
9	A	27	В	45	A	63	С	81	В
10	A	28	D	46	A	64	С	82	В
11	С	29	В	47	D	65	В	83	A
12	A	30	В	48	С	66	D	84	В
13	В	31	A	49	В	67	D	85	D
14	С	32	A	50	A	68	С	86	D
15	A	33	В	51	С	69	A	87	A
16	В	34	A	52	D	70	A	88	A
17	A	35	В	53	В	71	A	89	С
18	A	36	D	54	A	72	D	90	A

# **CMS Section B: Surgery**

a Renders the skin sterile b Does nothing to affect the outcome of the surgery  Reduces the bacterial fl ora to a level the surgery continuous system  I so not necessary if antibiotics are given a large system and the surgery and the surgery and the surgery and the surgery are surgery and the surg	No.	Question	Choice	Answer
Preparing a patient's skin for surgery			a	Renders the skin sterile
Preparing a patient's skin for surgery			1-	Does nothing to affect the outcome of
c that can be controlled by the patient's immune system.  d Is not necessary if antibiotics are given In excitable dogs that need immediate calming by In young female dogs.  In male dogs with female characteristics.  Exclusively in female dogs who have afready had litters of puppies.  Which of the following do/does not have to be sterile during a surgical procedure to maintain aseptic technique?  Which of the following may be performed for all of the following reasons except  Which of the following statements is true?  Which of the following statements is true?  Which of the following statements is true?  The client should be instructed to contact the veterinary hospital if any of the following occur with a splint or cast except  When a dog or cat is spayed, the surgical incision is most commonly made  The animal is walking on or using the splinted or casted leg subcutaneous emphysema  When a dog or cat is spayed, the surgical incision is most commonly made  The animal is walking on or using the splinted or casted leg subcutaneous emphysema  A chest tube is placed when an animal has  The surgical procedures of the ear include all of the following except  To a large transport of the surgical of the following except  The plant or as a surgical energency or characteristics  Large transport of the finite or and the surgical of the following except  The plant of the following transport of the surgical incision is most commonly made  The animal is walking on or using the splinted or casted leg or large transport of the umbilition or cast except  The plant or cast is wet.  The leg loos swollen above or below the cast or the umbilition or cast except  The plant or cast is wet.  The plant or cast or wet.  The plant or cast or wet.  The plant or cast or wet.  The leg loos swollen above or below the cast or the umbilition or cast or wet.  The plant or cast or wet.  The plant or cast or wet.  The plant or cast or wet.  The leg loos swollen above or below the cast or c			b	_
c that can be controlled by the patient's immune system d Is not necessary if antibiotics are given In excitable dogs that need immediate calming b In young female dogs In male dogs with female characteristics Exclusively in female dogs who have already had litters of puppies a Mask b Drapes c Instruments d Gloves a Prevention of prostate cancer Prevention of prostate cancer a Prevention of prostate cancer b Prevention of prostate cancer b Prevention of prostate cancer c Sterilization of the animal d Prevention of strus  Which of the following statements is true?  Which of the following statements is true?  Which of the following statements is true?  The client should be instructed to contact the veterinary hospital if any of the following occur with a splint or cast except  The client should be instructed to contact the veterinary hospital if any of the following occur with a splint or cast except  When a dog or cat is spayed, the surgical incision is most commonly made  The animal is walking on or using the splinted or casted leg	1	Preparing a patient's skin for surgery		
Immune system   d   Is not necessary if antibiotics are given   In excitable dogs that need immediate calming   b   In young female dogs   In near the calming   b   In young female dogs   In near the calming   b   In young female dogs   In near the calming   b   In young female dogs   In near the calming   b   In young female dogs   In male dogs with female characteristics   d   Exclusively in female dogs who have already had litters of puppies   Mask   b   Drapes   d   Gloves   Instruments   d   Gloves   Instruments   d   Gloves   a   Prevention of prostate cancer   Prevention of prostate cancer   Prevention of prostate cancer   Prevention of prostate cancer   Prevention of estrus   d   Gloves   a   Prevention of the animal   d   Prevention of estrus   E   Female cans over age 3 are too old to be spayed   Female ferrets that are not bred or spayed are likely to develop a life-threatening anemia.   All female animals become fat after spaying.   It is benefic call to allow a female dog to have one litter before spaying   a   The animal chews at the splint or cast is well of have one litter before spaying   a   The animal chews at the splint or cast is well of have one litter before spaying   a   The animal chews at the splint or cast is well of have one litter before spaying   a   The animal chews at the splint or cast is well of have one litter before spaying   a   The animal chews at the splint or cast is well of have one litter before spaying   a   The animal show at the splint or cast is well of have one litter before spaying   a   The animal show at the splint or cast is well of have one litter before spaying   a   The animal shows at the splint or cast is well of have one litter before spaying   a   The animal shows at the splint or cast is well of have one litter before spaying   a   The animal shows at the splint or cast is well of have one litter before spaying   a   The animal shows at the splint or cast is well of have one litter before spaying   a   The animal shows at the splint or cast is well of			c	that can be controlled by the patient's
A chest tube is placed when an animal has   Line				
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technique?    Collowing	2		b	Drapes
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following reasons except  a  Female cats over age 3 are too old to be spayed  Female cats over age 3 are too old to be spayed are likely to develop a life-threatening anemia.  Female ferrets that are not bred or spayed are likely to develop a life-threatening anemia.  All female animals become fat after spaying.  It is benefit cial to allow a female dog to have one litter before spaying  a The animal chews at the splint or cast is wet.  The client should be instructed to contact the veterinary hospital if any of the following occur with a splint or cast is wet.  The animal is walking on or using the splinted or casted leg  a Midline, cranial to the umbilicus  b In the left inguinal region  c In the right inguinal region  d Midline, caudal to the umbilicus  a Subcutaneous emphysema  b Pulmonary edema  c Ascites  d Pneumothorax  a Difficult breathing  b Due to a side effect of opioid drugs  c Difficult or abnormal birth  d Always a surgical emergency  a Otoplasty  Surgical procedures of the ear include all of the  following except  c Aural hematoma drainage	1	An ovariohysterectomy may be performed for all of the	b	Prevention of pyometra
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Surgical procedures of the ear include all of the following except  Bulla osteotomy  C Aural hematoma drainage			d	Always a surgical emergency
Surgical procedures of the ear include all of the following except  Bulla osteotomy  C Aural hematoma drainage			a	
following except c Aural hematoma drainage	10	Surgical procedures of the ear include all of the	b	
· · ·	10	following except	С	Aural hematoma drainage
			d	

A declaw is also known as an  A declaw is also known as an  A declaw is also known as an  B ovariohysterectomy  A declaw is also known as an  Which of the following is not completely removed in an ovariohysterectomy  Which of the following is not completely removed in an ovariohysterectomy  B ovaries  C Uterine horns  D ovaries  C Uterine horns  D ovaries  C Uterine horns  D ovaries  C Uterine horns  A no incision into the kidne  D ovaries  C Proptosis of the eye  D ovaries  Third eyelid prolapsed  D ovaries  Third eyelid prolapsed  D ovaries  C Proptosis of the eye  D ovaries  C Proptosis of the eye  D ovaries  Third eyelid prolapsed  D	
12   Which of the following is not completely removed in an ovariohysterectomy   d   Onychotomy     13   Enucleation may be required to correct   Enucleation may be required to correct   Description     14   Nephrectomy refers to   Enucleation may be required to correct   Enucleat	
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Which of the following is not completely removed in an ovariohysterectomy  Benucleation may be required to correct  Enucleation may be required to correct  An Third eyelid prolapsed  C Proptosis of the eye  d Aural hematoma  a An incision into the kidne  b The removal of a kidney  d The biopsy of a kidney  a Polydioxanone  b Prolene  c Chromic catgut  d Vicryl  a Hematoma  b Seroma  c Hemangioma  d Lipoma  Placing the bones back in normal position  b Keeping the bones very st	
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Which of the following is not completely removed in an ovariohysterectomy    Composition   Compositi	
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Enucleation may be required to correct  Description of the eye  Aural hematoma  An incision into the kidne  b The removal of a kidney  The removal of a kidney  d The biopsy of a kidney  a Polydioxanone  Which of the following suture materials persists in the body for the longest period?  Enucleation may be required to correct  a An incision into the kidne  b The removal of a kidney  a Polydioxanone  C Chromic catgut  d Vicryl  a Hematoma  Scrotal swelling after orchidectomy is most likely due to a  C Hemangioma  d Lipoma  Placing the bones back in normal position  Keeping the bones very st	
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body for the longest period?  Chromic catgut  d Vicryl  a Hematoma  b Seroma  c Hemangioma  d Lipoma  Placing the bones back in normal position  k Keeping the bones very st	
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Keeping the bones very st	to then
	ill until
1 / 1 Practure apposition releasing	iii uiitii
Removing small fragment	c from
c Removing small fragment	S HOIII
d Placing pins through the n	norross, consitu
	larrow cavity
What suture pattern is commonly used to close the skin b Simple continuous	
of cattle following a rumenotomy?  c Interrupted horizontal mat	
d Continuous horizontal ma	
a Quaternary ammonium co	mpounds
Which of the following agents can be used as both an b Mercurial compounds	
antiseptic as well as a disinfectant?  c Isopropyl alcohol	
d Formaldehyde	
Which of the following outure meterials is most	
Which of the following suture materials is most appropriate to close the muscle Layers of the cow	
l c l chromic catalit	
following a left-displaced abomasum surgery?  d 3 polydioxanone	
a One	
What is the minimum number of throws required when h Two	
making a surgical knot?  what is the infinitian number of throws required when the first property of the prope	
d Four	
a To decrease the chance of	infection
To decrease the chance of	
Why is it important to minimize the amount of dead b formation	SCIUIIIA
space when suturing?	
c To improve hemostasis	
d To minimize necrosis	
a Polydioxanone	
Which of the following is an absorbable suture  b Prolene	
23 material?	
d Cotton	
u u	

			Aga of the notiont
	XXVI (Co. 4 co. 111 co. 4 co. 11 co. 4 co. 11 co. 4 co.	a	Age of the patient Presence of infection
24	What factor will not infl uence how rapidly suture	b	
	materials are absorbed by the body?	С	The location of the suture
		d	The composition of the suture material
		a	Increased blood CO 2
25	Which of the following does not cause an increase in	b	Anesthesia is too light
23	respiratory rate in an anesthetized animal?	c	Increased PaO
		d	Hyperthermia
		a	Anal sac removal
26	Which of the following is not considered a	b	Dental extractions
20	contaminated surgery?	c	Intestinal anastomosis
		d	Gastrotomy
		a	Presence of infection
27	Which of the following is not a factor inf uencing the	b	Amount of missing tissue
27	formation of exuberant granulation tissue?	С	Depth of the wound
	č	d	Location of the wound
		a	Mucopurulent
	If a surgical incision is dehiscing, the discharge, if	b	Serosanguineous
28	present, is most likely to be	c	Serous
	present, is most likely to be	d	Purulent
		-	Chlorhexidine
	Which of the following agents has been associ-ated	a b	Povidone iodine
29	with causing neurologic disorders in cats		Quaternary ammonium compounds
	with causing neurologic disorders in cats	С	
		d	Hexachlorophene
	XXII: 1 C.1 C.11 '	a	Silk
30	Which of the following suture materials is most likely	b	Cotton
	to cause stitch granulomas if left in too long	c	Nylon
		d	Prolene
		a	Plaster cast application
31	Which of the following is not included in internal	b	Application of screws
	fixation of the fractures?	С	Intramedullary Pinning
		d	Bone plating
		a	Extends from umbilicus to pubis on
			linea alba
		b	Extends from umbilicus to xiphoid on
32	Regarding, laparotomy, midline incision		linea alba
32	Regarding, taparotomy, midme metsion	c	Extends from xiphoid to pubis on linea
			alba
		d	Is made lateral to linea alba from
			xiphoid to pubis
		a	1 <sup>st</sup> and 2 <sup>nd</sup> coccygeal vertebrae
22	Site for anidural anaethesis in aguines is between	b	2 <sup>nd</sup> and 3 <sup>rd</sup> coccygeal vertebrae
33	Site for epidural anesthesia in equines is between:	С	3 <sup>rd</sup> and 4 <sup>th</sup> coccygeal vertebrae
		d	Last sacral and 1 <sup>st</sup> coccygeal vertebrae
		a	The bone is broken into two pieces
		b	The bone is broken into more than two
			pieces
34	The fracture is called as compound one if	С	Fractured bone is exposed to external
	1		environment
		d	Along-with bone, there is also damage
			to muscles
		a	First intention
		u	
35	The type of wound healing in which granulation tissue	b	Second intention
33	forms, filling of the defect, is known as:	С	Third intention
		d	Fourth intention
		u	1 Outui intention

	T		T
		a	Emasculator
36	The instrument used to drive pin in medullary cavity is	b	Grove director
30	called as	c	Hand chuck
		d	Ectropion forceps
		a	Within first week of life
	The ideal time for elective ovariohysterectomy in	b	Before heat period
37	female dog is	c	After first heat period
	Tentale dog 15	d	During estrus
	XXXII 1 C.1 C.11 1 1 1 1 1 C.	a	Oxytocin
38	Which of the following drug is used in splenectomy for	b	Adrenaline
	causing shrinkage of the spleen?	c	Dexamethasone
		d	Atropine
		a	Body of uterus
20	The best incision site for removing pups from uterus	b	Tip of uterine horn
39	during cesarean section is	С	Centre of uterine horn
		d	Cervix
		a	Closure of hollow organs
		b	Closure of skin
40	Cton outrons one analised for		
40	Stay sutures are applied for	c	Better handling of an organ to be
			operated
		d	Ligation of blood vessels
		a	Provide sufficient anesthesia for minor
			surgery
41	When used as a preanesthetic, atropine will:	b	Frequently produce vomiting
	, 1	С	Inhibit excessive salivary secretion
		d	Cause the pupils to constrict
		a	Nitrous oxide
	The ends lime in inhelation enacthesis agricument is	b	Nitrogen
42	The soda lime in inhalation anesthesia equipment is		
	used to absorb:	c	Carbon dioxide
		d	The anesthetic
		a	Gambee suture
43	Suture pattern which is suitable for intestinal	b	Halstead suture
43	anastomosis	c	Cross mattress suture
		d	Interrupted inverted mattress suture
		a	Linen
			Polyglycolic acid
44	Which is an absorbable suture material of the following	b c	Vetafil
		d	
			Silk worm gut
		a	Autounitilations
45	Following are the complications of orchidectomy	b	Scrotal cellulites
.5	except	c	Local cellulites
		d	Orchitis
		a	retro-bulbar nerve
1.0	Which makes is blocked in Foundary	b	Cornual nerve
46	Which nerve is blocked in Enucleation	С	Trochelar nerve
		d	Abundant nerve
			Erythromycin
	The entimienship of choice for more executive	a	
47	The antimicrobial of choice for per operative use in	b	Tylosin
	colostomy is:	c	Penicilline
		d	Cephalosporin
		a	Contusion
48	Which of the following is considered as closed wound?	b	Laceration
40	Which of the following is considered as closed wound?	С	Incision
		d	Puncture
		a	At age of 3 months
		b	Less than 3 months
49	Best age for amputation of tail in dog is		More than 3 months
		С	
1		d	At age of one year

		a	One week interval
50	Shoeing of horse should be done at every	b	two week interval
	Shooming of horse should be done at every	c	three week interval
		d	four week interval
		a	excising the dead muscles
		b	Excising
51	Debridement of wound means	c	laying open all the layers of wound,
31	Debitdement of wound means		excising of the dead tissue, and through
			cleaning and dressing of the wound
		d	none of the above
		a	sub-arachnoid space
50	While administering epidural anaesthesia, the	b	extradural space
52	anaesthetic solution is injected into:	С	spinal cord
	,	d	subdural space
		a	to improve the appearance of the
			animal
53	Cosmetic surgery in veterinary science is done:	b	to satisfy the fancy of the owner
	Cosmetic surgery in veterinary science is done.	c	to satisfy the sentiments of the owner
		d	all bove
		a	small blood vessels
		b	large blood vessels
54	Transfixing ligature is preferred in:	c	both above
		d	none of the above
		-	Examination of Postmortem material
		a	
	Which one of the following does not fall in the scope of	b	Age determination
55	Veterinary Radiology:	c	Examining archeological samples of
	,	1	animal origin
		d	Screening of narcotics
		a	13-30 mg/kg body weight
56	Pentothal sodium is administered in the dog for	b	15-25 mg/kg body weight
	spleenectomy at the dose rate of	c	20-35 mg/kg body weight
		d	25-35 mg/kg body weight
		a	The bone is broken in to two pieces
		b	The bone is broken into more than two
			pieces
57	The fracture is called as compound one if	c	Fractured bone is exposed to external
			environment
		d	Along-with bone there is also damage
			to muscles
	Regarding the bone grafting, the bone graft that is taken	a	Homograft
58	from the animal of same species as that of patient is	b	Autograft
30	called as	c	Xenograft
	Canca as	d	Hetrograft
		a	Entrectomy
50	Dioctophyma renale worm infestation is treated	b	Nephrotomy
59	surgically by	С	Entrotomy
		d	Gastrotmy
		a	Hysterotomy
	Which surgical procedure is designed to enlarge the	b	Vaginotomy
60	vular opening?	c	Episiotomy
	- F F	d	Celiotomy
61		a	Mal union
01	complication occurs when bones are allowed to	b	Osteomyelitis
	heal in non-functional anatomical position.	c	Improper immobilization
	near in non-runetional anatomical position.	d	All of these
		a	All of these

62	In a dog showing abdominal breathing, short gasping	a	diaphragmatic hernia
	breaths and tucked up abdomen, the most logical thing	b	intestinal pneumonia
	to suspect would be:	c	lobar pneumonia
	to suspect would be.	d	pneumothorox
63		a	6 in number
	The principles of modern surgery first laid down by	b	4 in number
	Halstead(1652-1922) are:	c	8 in number
		d	3 in number
64		a	adequate plane of anesthesia
	Once under exectly sign dileted manile indicates	b	inadequate plane of anesthesia
	Once under anesthesia, dilated pupils indicate:	С	excitatory stage
		d	impeding respiratory arrest
65		a	decrease the amount of anesthetic
			needed
	D d d	b	increase the amount of anesthetic
	Preanesthetic agent may		needed
		С	decrease the oxygen needed
		d	increase the toxicity of anesthetic agent
66		a	Intussusception
		b	Recurrent Prolapse
	Colopexy is indicated in:	С	Megacolon
		d	None of above
67		a	Absorbability
		b	Strength
	The most important method of classifying sutures is:	С	Tensile strength
		d	Knot security
68		a	14 days
	Absorbable sutures losses the majority of its strength	b	30 days
	within:	С	60 days
		d	120 days
69		a	Foreign bodies in the wound
		b	Inadequate blood supply
	Wound healing may be impaired by	c	Frequent movement
	6 ., r	d	malignant growths
		e	all of the above
70	Tenets of Halstead are:	a	Gentle handling of tissue
		b	Aseptic surgery
		c	Anatomical dissection
		d	Control of haemorrhage
		e	All above

CMS Key Section B: Surgery

No.	Answer								
1	С	15	В	29	D	43	A	57	С
2	В	16	A	30	С	44	В	58	A
3	A	17	A	31	A	45	D	59	В
4	A	18	D	32	С	46	A	60	С
5	В	19	С	33	A	47	D	61	A
6	D	20	С	34	С	48	A	62	A
7	D	21	В	35	В	49	В	63	С
8	D	22	В	36	С	50	С	64	A
9	С	23	A	37	С	51	С	65	A
10	D	24	A	38	В	52	В	66	В
11	В	25	С	39	A	53	D	67	A
12	A	26	A	40	С	54	В	68	С
13	С	27	С	41	С	55	D	69	Е
14	В	28	В	42	С	56	A	70	Е

#### Institute of Microbiology

## IOM Section A: Veterinary Epidemiology and Public Health

No.	Questions	Choice	Answers
		a	Injection
1	Venereal transmission of disease in a flock occurs	b	Ingestion
1	through	С	Sexual interaction
		d	Doctors
		a	Pappiloma virus
2	The haemagglutinin is an antigenic determinant present	b	IBD virus
2	on	С	NDV
		d	Adeno virus
		a	Respiratory & reproductive
		b	CNS & GIT
3	The IB virus preferably infects which organ(s)?	С	Heart
		d	Liver
		a	Reservoirs
	Infectious diseases can spread from farm to farm	b	Carriors
4	through inanimate objects called as	c	Fomites
	unough mainmate objects cance as	d	Machines
			Typhoid
	Which of the following disease is transmitted from	a b	Bird flu
5	Which of the following disease is transmitted from		Psittacosis
	parrots to human?	C	
		d	Cholera
		a	Antagonise
6	Presence of maternal antibodies the	b	Enhance
	effect of vaccines	С	Synergize
		d	Complement
	Which of the following is a viral zoonotic disease of	a	IBD
7		b	HPS
,	poultry?	С	Bird Flu
		d	CIA
		a	Epidemic
8	The occasional occurrence of a disease in a population	b	Outbreak
0	is called as	С	Pandemic
		d	Sporadic
		a	Population
9	In cohort epidemiological studies, the word "cohort"	b	Group
9	means	С	Risk
		d	Variable
		a	Avian Influenza
10	Which of the following is an arthropod vector borne	b	Coccidiosis
10	disease of chicken?	С	Spirochetosis
		d	CRD
		a	PCR
	Which of the following is not an immuno-diagnostic	b	HA & HI
11	test?	c	ELISA
		d	Serum plate agglutination test
		a	C x I
	In case of stable endemic diseases, the prevalence	b	IxD
12	equals to	c	PxD
	Oquali to	d	none of above
<u> </u>			Saprozoonosis
		a b	Reverse zoonosis
13	Which of the following is an example of hydatid cyst		
13	zoonosis?	C	Cyclozoonosis
		d	all of the above

		a	Specie
14	Which of the followings are included in intrinsic	b	EnvironmenT
1.	determinants of a disease	c	Genetics
		d	A & C
		a	Epidemic
15	Sudden outbreak of a disease in avian population is	b	Pandemic
13	called as	c	Epornitics
		d	Sporadic
		a	Case-control
	The exposed and non-exposed groups are compared for	b	Experimental
16	the causation of a disease in which studies?	c	Cross-sectional
	the education of a disease in which studies.	d	non of the above
		a	Topogarphy
	For disease forecasting which of the following system	b	GIS
17	For disease forecasting, which of the following system		
	is currently used in epidemiology	C	Computer & IT
		d	Mobile & cable
		a	Specificity
18	Lack of of a diagnostic test results in	b	Predictive value
10	false positive results	c	Sensitivity
		d	Reproducibity
		a	Plants
10	The mass comic linfections are acquired from	b	Hospital
19	The nosocomial infections are acquired from	С	Animals
		d	Doctors
		a	Temporal
		b	Concomitant
20	Area based distribuation of a disease is reffered as	c	Sporadic
		d	Spatial
	Amount or magnitude of a disease in a nonulation is	a b	% positivity
21	Amount or magnitude of a disease in a population is		Occurrence
	called as	c	Hyperendemic
		d	none of the above
		a	GIS
22	Making routine observations on health, productivity	<u>b</u>	Monitoring
22	and environment is called as	c	Surveillence
		d	Cohort studies
		a	Viral diseases
22	Trans-stadial transmission of disease is mostly	b	Protozoan diseases
23	observed in	c	Bacterial diseases
		d	Cancer
		a	no. of deaths/total population
ا		b	no. of diseased animals/total population
24	Mortality of a disease can be calculated as	c	M=I/D
		d	none of the above
		-	Arbo-viral disease
		a h	Protozoan disease
25	Dengue fever is a	<u>b</u>	
		C	Oncoviral disease
		d	Water-borne disease
		a	Health Promotion
	Prophylactic administration of vitamin K in breast fed	b	Treatment
26	babies is an example of:	c	Specific protection
	odoles is an example of.	d	Rehabilitation
		e	Primordial
	In a bulk of hundred children out of whom 28 are	a	5%
	immunized 2 of them get measles simultaneously.	b	10%
27	Subsequently 14 get measles. Assuming the efficacy of	c	20%
<i></i>	the vaccine to be 100%, what is the secondary attack	d	21%
	rate?	e	19.4%
		C	17.7/0

	A 31 1 1 6100 1 6 1311 TB		250/
	A village has a total of 100 under-five children. The	b a	25%
	coverage with measles vaccine in this age group is 60% (assuming the efficacy of vaccine to be 100%).		40%
28		С	50%
	Following the occurrence of a measles case in a child	d	65%
	after a visit outside, twenty- six children developed measles. The secondary attack rate of measles is:	e	66%
		a	Case fatality is more in female
		b	Mortality in male is higher
	In an epidemiological study the incidence of disease in	С	Disease is of less duration in males
29	females is more than that of males but the prevalence is	d	Females harbour disease for longer
	equal in both. It indicates:		duration
		e	Males harbour disease for longer
			duration
		a	0.44
	Which one of the following is the Odds ratio, calculated	b	1.5
30	from the given data? Diseased Un-diseased Positive 30	С	0.8
	20 Negative 20 30	d	2.25
	20 110841110 20 30		2.00
		e a	Case series report
	A total of 300 newly diagnosed patients with laryngeal	b	Case-control study
31	cancer are allocated to treatment with either surgical	c	Clinical trial
	excision alone or surgical excision plus radiation	d	Cohort study
	treatment. What is the study design?	e	Case report
	An analysis of the race of patients who visit an	a	Venn diagram
	emergency room reveals that 40% are white, 25% are	b	Cumulative frequency graph
32	black, 20% are Native American, and 15% are Asian.	c	Normal curve
32	These data would best be depicted graphically with a	d	Histogram
	These data would best be depicted graphically with a	e	Pie chart
		c	Nominal
	A study was conducted in America to find out the	b	Ordinal
33	A study was conducted in America to find out the proportion of blacks and white Americans in California.	c	Continuous
33	This variable chosen is	d	Discreet numerical
	This variable chosen is		Dichotomous
	A = 1.1'- 1 - 1.41 - 1 - 1'-1'	e	Cross sectional
	A public health physician wants to study the load of	a b	Case series
24	hypertension in Rawalpindi district to establish special		Case series
34	screening & treatment services in the mentioned area.  Which design is more useful for this?	c d	
	which design is more useful for this?		Case control
		e	Experimental
	Japan has a high rate of stomach carcinoma and a low	<u>a</u> b	Migrant studies
25	rate of colon carcinoma than the U.S. Which study		Case control Incidence
35	would you suggest to prove or support the	С	
	environmental effect on the incidence of these cancers?	d	Case reports
		e	Mortality survey
	To give the relevant importance to hypertension control	a	Inappropriate
2.5	in a health service a researcher wants to study the	b	Suitable
36	prevalence of hypertension. He chose a cohort study.	С	Quick
	The design to assess prevalence is?	d	Feasible
	, i	e	Expensive
	A researcher wants to study natural history of silicosis	a	Cross sectional
	in a population of industrial workers. Which design is	b	Case report
37	most useful?	С	Case control
1		d	Incidence
		e	Ecological survey

38	· ·		D ' /
38	If a researcher wants to study precedence relationship	a	Descriptive survey
38	between the exposure and effect, which design should	b	Ecological survey
	he prefer?	c	Case series
	p. 2101 .	d	Cross sectional
		e	Cohort
	Smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrous have mide of land a smolrous for the smolrou	a	Specificity
	Smokers have risk of lung cancer four times more than	b	Strength of association
39	non smokers. If smoking indicates causal association	С	Coherence
	this characteristic gives:	d	Consistency
	ļ	e	Temporal sequence
	The incidence of gonorrhoea is continuously increasing	a	Common source single exposure
	in a particular locality. An investigator reveals that	b	Common source continuous exposure
40	mostly sex workers are living there. This epidemic may	c	Propagated epidemic
40	be classified as:	d	Slow epidemic
	be classified as.		*
		e	modern epidemic
	A public health physician wants to study the load of	a	Cross sectional
	hypertension in Rawalpindi district to establish special	b	Case series
41	screening & treatment services in the mentioned area.	С	Cohort
	Which design is more useful for this?	d	Case control
		e	Experimental
	In a prospective study of the relationship between oral	a	630 / (50 + 630)
	contraceptive use and the subsequent risk of developing	b	75 / (245 + 75)
	heart disease, a cohort of 1000 women were followed	с	50 / (50 + 630)
42	for 5 years. The results were as follows: Present Absent	d	245 / (245 + 75)
42	A 245 B 75 C 50 D 630 A + C = 295 B + D = 705 n =	e	680/(320+680)
	1000 What is the incidence rate (absolute risk) of	-	
	endometrial cancer among those who didn't use oral		
	contraceptives?		
	10 cases of food poisoning had been reported in	a	Infectivity
	hospital, 2 out of these developed mild gastrointestinal	b	Pathogenicity
43	symptoms, 4 developed moderate dehydration but	c	Virulence
43	recovered and 2 succumbed to the disease. The	d	Communicability
	characteristic of the organism of food poisoning that	e	Resistibility
	produces the severest form of the disease is:		•
Ī	The incidence of gonorrhoea is continuously increasing	a	Common source single exposure
	in a particular locality. An investigator reveals that in	b	Common source continuous exposure
44	that area mostly sex workers are living. This epidemic	c	Propagated epidemic
	•	d	Slow epidemic
	may be classified as	e	modern epidemic
	In Rawalpindi general hospital during the month of	a	11.5 / 1000
	December, a total of 10 patients were admitted with	b	12.5 / 1000
	diagnosis of meurngococcal meningitis. The total	c	13.0 / 1000
45	inpatients in that month were 800. What is the	d	9.0 / 1000
	incidence rate of meningocacal meningitis for the	e	10.5 / 1000
	month of December?	•	10.07
	While investigating a point source epidemic it was	a	0.7
	found that 120 students ate five different foods (meat	b	1.2
	burgers, fried fish, steak, rice and fruit salad). The	c	1.7
1.0	relative risk was calculated for all those five foods. It	d	3.0
46	was concluded that fish was not responsible for this	e	7.0
40	epidemic. The relative risk of fish is:	е	7.0
46			0.44.0
40		a	8/10
40	Among 10 women with cervical cancer, medical	a h	8/10
	Among 10 women with cervical cancer, medical records confirm a past history of herpes simplex type II	b	10/8
47	Among 10 women with cervical cancer, medical records confirm a past history of herpes simplex type II infection in eight. What is the relative risk of	b c	10/8 8/2
	Among 10 women with cervical cancer, medical records confirm a past history of herpes simplex type II	b	10/8

	In an outbreak of cholera in a village of 2,000	a	. 1%
	population, 20 cases have occurred and 5 died. Case	b	.25%
48	fatality rate is:	c	. 5%
	ratanty rate is.	d	. 25%
		e	.0025%
		a	0.02
	What is the incidence of new cases per 1000 person	b	0.01
49	years in households that had a culture positive case	c	1.0
	during the first survey	d	10
		e	20
	In a population of 1000, measles coverage is 60%, one	a	0.65%
	child goes out of station and comes back with measles	b	5%
50	from whom 20 more children get	c	6%
	measles. Secondary attack rate of measles is:	d	6.5%
		e	7%

IOM Key Section A: Veterinary Epidemiology and Public Health

No.	Answer								
1.	С	11.	A	21.	D	31.	C	41.	A
2.	С	12.	В	22.	В	32.	Е	42.	C
3.	A	13.	C	23.	В	33.	Е	43.	C
4.	С	14.	D	24.	A	34.	A	44.	В
5.	С	15.	С	25.	A	35.	A	45.	В
6.	A	16.	D	26.	C	36.	A	46.	A
7.	С	17.	В	27.	C	37.	D	47.	C
8.	D	18.	С	28.	Е	38.	Е	48.	D
9.	В	19.	В	29.	A	39.	В	49.	D
10.	С	20.	D	30.	D	40.	В	50.	В

Section B: Food Microbiology and Immunology

In a antigen haptens are    A	No.	Question	Choice	Answer
In a antigen haptens are				
The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody are produced by  To produced by  The antibody class/type which can cross placenta is  The antibody class/type which can c		In a antigen haptens are		
The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody that is first formed after infection is  The antibody are produced by  The antibody class/type which can cross placenta is  The placenta is  The antibody class/type which can cross placenta is  The placenta is  The antibody class/type which can cross placenta is  The placenta is  The antibody class/type which can cross placenta is  The placenta is  The antibody class/type which can cr	1			·
The antibody that is first formed after infection is    Antibodies in our body are produced by				
The antibody that is first formed after infection is    C				
Antibodies in our body are produced by  Antibody class/type which can cross placenta is  The antibody class/type which can cross placenta is  Antibody class/type which can cross placenta is  The antibody class/type which can cross placenta is  Ballymphocytes  Anti-lymphocytes  Anti-lymphocytes  Antibody class/type which can cross placenta is  Ballymphocytes  Antibody class/type which can cross placenta is  Ballymphocytes  Antibody class/type which can cross placenta is  Ballymphocytes  Antibody malectal  Ballymphocytes  Antibody malectal  Ballymphocytes  Antibody malectal  Ballymphocytes  Antibody malectal  Ballymphocytes  Antibody present in colostrums is  Calpha  Ballymphocytes  Antibody present in calcass at a light  Antibody present in calcass		The antibody that is first formed after infection is		· ·
Antibodies in our body are produced by  Antibodies in our body are produced by  The antibody class/type which can cross placenta is  The antibody class/type which can can light  The antibody molecules  The antibody molecules  The prementation Technology  The effection of extendions  The antibody molecules  The prementation Technology  The effection of extendions  The antibody molecules  The prementation of extendions  The antibody molecules  The prementation of the hology  The antibody molecules  The prementation of the hology  The antibody molecules  The production of panicental is  The antibody molecules	2	The antibody that is first formed after infection is		· ·
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Antibodies in our body are produced by  Antibodies in our body are produced by  T-lymphocytes  Monoctors  The antibody class/type which can cross placenta is  The placental charles of antibodies  The antibody present in colostrums is  The antibody class/type which can cross placenta is  The placental transfer of antibodies  The antibody present in colostrums is  The antibody class/type which can cross placenta is  The product of antibodies  The antibody class/type which can cross placenta is  The placental transfer of antibodies  The place				ŭ
The antibody class/type which can cross placenta is  The placental trachnology  The antibody molecules  The reaction of antigen is  The cellular immune response is mediated by  The cellular immun		Andihadiaa in aan hada aa madaa dha		
The antibody class/type which can cross placenta is  The antibody molecules  The properties and the second control of these  The cellular immune response is mediated by  The cellular immune response is mediated by  The cellular immune response is mediated by  The reaction of soluble antigen with antibody is known by  The reaction of each cells  The reaction of each cells  Th	3	Antibodies in our body are produced by		
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The antibody class/type which can cross placenta is    Composition   First site of entry of antigen is   Eigh				
C   IgA   d   IgM   lybridoma technology   b   Biotechnology   c   Fermentation Technology   c				· ·
Monoclonal antibodies are produced by    A	4	The antibody class/type which can cross placenta is		· ·
Monoclonal antibodies are produced by    A				· ·
Monoclonal antibodies are produced by   Biotechnology   C   Fermentation Technology			d	Č
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First site of entry of antigen is  Antibody molecules  b Unbroken skin  c Antigen molecules  d Phagocytic cells  a B cells  b T cell  c B & T cells  d Endothelial cells  a Precipitation  b Floculation  c Agglutnation  d Complement fixation  d Complement fixation  d Complement fixation  d Complement fixation  d Nucleic acid  n Nucleic acid  n Infection  Active immunity is induced by  Immunity is lifelong following  a Diphtheria  b Placental transfer of antibodies  c Injection of gamma-globulins  a Diphtheria  b Diphtheria  c Measles  d Yellow fever  a Small pox material  b Conver pox material  c Cover-pox material  d Meas les material	5	Monoclonal antibodies are produced by	b	
First site of entry of antigen is  First site of entry of antigen is  Building molecules  Antibody molecules  building molecules  Antipocytic cells  a B cells  b T cell  c B & T cell  d Endothelial cells  a Precipitation  b Flocculation  c Agglutination  d Complement fixation  d Complement fixation  a Lipids  b Lipoprotein  c Glycoprotein  d Nucleic acid  n Infection  Active immunity is induced by  Immunity is lifelong following  Immunity is lifelong following  To prepare vaccine for small pox, the material used by Edward Jenner is  Antibody present in colostrums is  a Antibody present in colostrums is	3	Wonocional antibodies are produced by	С	
First site of entry of antigen is    C			d	
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The cellular immune response is mediated by  By  The reaction of soluble antigen with antibody is known by  The Reaction of Selfuction  The Reaction of Self	6		С	Antigen molecules
The cellular immune response is mediated by  The cellular immune response is mediated by  The reaction of soluble antigen with antibody is known by  The reaction of soluble antibody  The recipitation  To prepare vacine for small pown the material used by antibody antibody antibody and a lipids  The reaction of soluble antibody  T			d	· ·
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The reaction of soluble antigen with antibody is known by    Complement fixation				
Box   C   Agglutination		The reaction of soluble antigen with antibody is known		
Hereferon is composed of  Interferon is composed of  Intertion  In	8	by		
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Interferon is composed of   C   Glycoprotein				
Interteron is composed of confidence of the first of the				
Active immunity is induced by  Active immunity is induced by  Begin{array}{c ccccccccccccccccccccccccccccccccccc	9	Interferon is composed of		* *
Active immunity is induced by  Active immunity is induced by  Begin{array}{c} & a & Infection \\ & b & Placental transfer of antibodies \\ & c & Injection of antibodies \\ & d & Injection of gamma- globulins \\ & a & Diphtheria \\ & b & Tetanus \\ & c & Measles \\ & d & Yellow fever \\ & a & Small pox material \\ & b & Chicken pox material \\ & c & Cow-pox material \\ & d & Meas les material \\ & d & Meas les material \\ & d & Meas les material \\ & d & Injection of antibodies \\ & d & In				
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C   Injection of antibodies   Injection of gamma- globulins     Immunity is lifelong following   Diphtheria     Immunity is lifelong following   Diphtheria		A saine immunitar in indused i		
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Edward Jenner is  C Cow-pox material  d Meas les material  a IgG  b IgA  c IgM				•
Antibody present in colostrums is  C Cow-pox material  d Meas les material  a IgG  b IgA  c IgM	12		b	
Antibody present in colostrums is  a IgG b IgA c IgM	12	Edward Jenner is	С	
Antibody present in colostrums is  b IgA c IgM			d	Meas les material
c IgM			a	IgG
c IgM	12	Antibody present in colostrums is	b	IgA
	13			
			d	IgE

	I I		A., 11 1911
		a	Attenuated bacilli
14	Anthrax vaccine is prepared by	b	Killing the bacilli
		С	Live bacilli
		d	None of these
		a	Tuberculin type
15	Example for cell-mediated immunity are	b	Contact dermatitis
13	Example for cen-inediated inimulity are	c	Granulomatous
		d	All of these
		a	Diphtheria
1.0	DPT, is used as vaccine for	b	Pertussis vaccine
16		С	Tetanus toxoid
		d	All of these
		a	Anti viral vaccines
	If the microbes used in the vaccine are obtained from	b	Anti bacterial vaccines
17	patient, they are	c	Autogenous vaccines
		d	None of these
		a	Egg albumin
		b	RBC and serum
18	Following substance may act as an antigen	c	Vegetable protein
10		d	Snake venom
	-		All of these
		e	
	Which antibody class is majorly involved in mucosal	a	IgY
19	immunity?	b	IgA
		c	IgD
		d	IgE
	The oldest and traditionally used adjuvant in vaccines is	a	BCG
20		b	ISCOMS
		С	Alum
		d	Montanide
	Most spoilage bacteria grow at	a	acidic pH
21		b	alkaline pH
21	Wost sponage bacteria grow at	c	neutral pH
		d	any of the pH
		a	an intrinsic factor determining the
			likelihood of microbial proliferation
22	Water activity can act as	b	a processing factor
		c	an extrinsic factor
		d	all of the above
	THE STATE OF THE S	a	Coxiella burnetii
22	The time temperature combination for HTST	b	E. coli
23	paterurization of 71.1°C for 15 sec is selected on the	С	B. subtilis
	basis of	d	C. botulinum
		a	Saccharomyces cerevisiae
			Streptococcus lactis and Lactobacillus
	Milk fermentation to produce cheese is done initially by	b	spp.
24	inoculating with	С	Acetobacter and Gluconobacter
	more mining mining		Lactobacillus bulgaricus and
		d	Streptococcus thermophiles
		a	Mycobacterium tuberculosis
	is resistant to heat due to the presence of	<u>a</u> b	Costridium tetani
25	is resistant to heat due to the presence of Mycolic acid		
	Mycone acid	C	Bacillus cereus
		d	E coli
		a	20-30 %
26	Water content of milk ranges from	b	40-50 %
	<b>G</b>	c	85-90%
		d	None of the above

			Lagtaga
27	Desillus caraus causes Conset condir - in milli berth	a b	Lactase
	Bacillus cereus causes Sweet curding in milk by the release of the enzyme	<u>b</u>	Coagulase Protease
	release of the enzyme	С	
		d	Amylase 90 °C for 30 mintues
		a	
28	In the low temperature long time method of	b	85 °C for 25 mintues
	pasteurization, milk is heated at	c	63 °C for 20 minutes
		d	None of the above
	are live microbial feed supplements that	a	Probiotics
29	have beneficial effects on the host by improving its	b	Prebiotics
_,	intestinal microbial balance	С	Bacterioiphages
		d	Starter culture
		a	Metchnikoff
30	The first scientist to give the concept of probiotics was	b	Fleming
30	The first selentist to give the concept of problems was	c	D' Herelle
		d	Louis Pasteur
		a	Bacillus cereus
21	Construction wills in account has	b	Campylobacter jejuni
31	Green color in milk is caused by	С	Clostridium perfingens
		d	Pseudomonas aerogenosa
		a	E.coli
22		b	Brewibacterium erythrogenes
32	Red color in milk is caused by	С	Sarcinia marcense
		d	Both b and c
		a	Brucella mellitensis
		b	Pseudomonas Synxantha
33	Yellow color in milk is caused by	c	Alcaligenes
		d	Aspergillus
		a	Butter milk
	comprises of all the milk contents except	b	Mik whey
34	milk fat and casein protein	c	Curd
	mink fat and casem protein	d	Yogurt
			Lactococcus lactis
		a b	Streptococcus
35	Nestle Yogurt is obtained by monoculture of		Micrococus
		С	None of the above
		d	
	Champan flavor in milli in due to the amain manner of	a	Bacillus
36	Sharp sour flavour in milk is due to the environment of	b	Mycobacterium
	species	С	Clostridium
		d	Streptococcus
		a	0.2
37	In Dry Milk water activity is reduced to	b	0.5
		c	0.7
		d	0.8
		a	Stringent
38	Oxidation of Unsaturated Fatty acids imparts	b	tellowy
	odor	c	pleasant
		d	None of the above
		a	Front slopping
39	The term is used widely particularly in	b	Back slopping
5)	fermented sausage manufacturing	c	Side slopping
		d	None of the above
		u	Trone of the deare
		a	Acromium hydrophila
40	A tunical flavour of fishings is and lead to		
40	A typical flavour of fishiness is produced by	a	Acromium hydrophila

Spores are added to the curds just before the final cheese processing   b Penicillium chrysogenum   c Penicillium chrysogenum   d All of these   d All of the			a	Penicillium notatum
before the final cheese processing    C		spores are added to the gurds just		
Infection by Coxiella results in a disease called   Description of the second of the	41			
Infection by Coxiella results in a disease called   b   Coxiellosis		before the final eneese processing		
Infection by Coxiella results in a disease called			-	
Infection by Coxiella results in a disease called  an enzyme from calf stomachs, but now produced by genetically engineered microorganisms, can also be used to promote curd formation  43				
d None of the above   a Amylase	42	Infection by Coxiella results in a disease called		
an enzyme from calf stomachs, but now produced by genetically engineered microorganisms, can also be used to promote curd formation  44				
an enzyme from call stomachs, but now produced by genetically engineered microorganisms, can also be used to promote curd formation   d   Both a and c   a   Bifidobacterium				
produced by genetically engineered microorganisms, can also be used to promote curd formation  44		an enzyme from calf stomachs, but now		
d Both a and c a Bifidobacterium b Propionibacterium c Lactobacillus d Streptococcus a Listeria b Brucella c Salmonella d Streptococcus a Pseudomonas mucidolense b Pseudomonas mucidolense b Pseudomonas aeruginosa c Bacillus subtilis d None of these a O157:H7 b O151:H8 c O111:H8 d All of these a 3.2 b 4.4 c 6.8 d 8.5 a Penicillium camemberti b Aspergillus fumigatus c Mucor d All of these a Botulism b Messles c Salmonellosis	43	produced by genetically engineered microorganisms,		
44 Gas production bycontributes to final flavor development and hole or eye formation in this cheese  45is found in soft cheeses and unpasteurized milk; it can even survive below freezing temperatures and can therefore withstand refrigeration  46strain of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  48tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  49tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  49tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  48tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  48tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  49tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  40tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  40tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  41tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  42tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  43tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  44tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  45tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  46tmin of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  48		can also be used to promote curd formation		
44 Gas production bycontributes to final flavor development and hole or eye formation in this cheese  45 is found in soft cheeses and unpasteurized milk; it can even survive below freezing temperatures and can therefore withstand refrigeration  46 Potato like flavour in milk is caused by  47 Potato like flavour in milk is caused by  48 Potato like flavour in milk is caused by  49 Potato like flavour in milk is about  49 Camembert cheese is inoculated with spores of  40 Development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or eye formation in this cheese can development and hole or experience.  45 Lactobacillus can be a Listeria can be survive below freezing by Brucella can be survive by Brucella can be su			-	
development and hole or eye formation in this cheese    C				ű.
d Streptococcus  a Listeria  b Brucella  c Salmonella  c Salmonella  b Potato like flavour in milk is caused by  Potato like flavour in milk is caused by  The strain of E. coli has been associated with a number of food-borne outbreaks and is the cause of Bloody Diarrhea  The ph of milk is about	44			
45		development and hole or eye formation in this cheese		
45 unpasteurized milk; it can even survive below freezing temperatures and can therefore withstand refrigeration  46 Potato like flavour in milk is caused by  47 Potato like flavour in milk is caused by  48 Potato like flavour in milk is caused by  48 PH of milk is about  49 Camembert cheese is inoculated with spores of  49 Lame of South and the spores of intoxication  40 Brucella  40 Calmonella  41 Streptococcus  42 Pseudomonas mucidolense  43 Pseudomonas aeruginosa  44 None of these  45 O157:H7  46 D151:H8  47 All of these  48 Assignating function and provided into the spores of  48 Assignating function and provided intoxication  49 Assignating function and provided intoxication  40 Brucella  41 Calmonella  41 Streptococcus  42 Pseudomonas mucidolense  43 None of these  44 O157:H7  45 D151:H8  46 All of these  48 Assignating function and provided intoxication  48 Assignating function and provided intoxication  49 Assignating function and provided intoxication  40 Brucella  41 Streptococcus  41 Assignation and pseudomonas mucidolense  42 Besudomonas mucidolense  43 Desudomonas mucidolense  44 Onone of these  44 O157:H7  45 D151:H8  46 All of these  48 Assignation and provided intoxication  48 Assignation and pseudomonas mucidolense  49 Assignation and pseudomonas mucidolense  49 Assignation and pseudomonas mucidolense  40 All of these  41 All of these  42 Assignation and pseudomonas mucidolense  43 Desudomonas mucidolense  44 Assignation and pseudomonas mucidolense  45 Dseudomonas mucidolense  46 Assignation and pseudomonas mucidolense  48 Dseudomonas mucidolense  48 Dseudomonas mucidolense  48 Dotalism			-	
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temperatures and can therefore withstand refrigeration  d Streptococcus  a Pseudomonas mucidolense  b Pseudomonas aeruginosa  c Bacillus subtilis  d None of these  a O157:H7  b O151:H8  c O111:H8  d All of these  a 3.2  b 4.4  c 6.8  d 8.5  a Penicillium camemberti  b Aspergillus fumigatus  c Mucor  d All of these  a Botulism  b Measles  c Salmonella  d Streptococcus  a Pseudomonas mucidolense  b Pseudomonas aeruginosa  c Bacillus subtilis  d None of these  a 0157:H7  b O151:H8  c O111:H8  d All of these  a 3.2  b 4.4  c 6.8  d 8.5  a Penicillium camemberti  b Aspergillus fumigatus  c Mucor  d All of these  a Botulism  b Measles  c Salmonellosis	45			
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46 Potato like flavour in milk is caused by  C Bacillus subtilis  d None of these  a O157:H7  b O151:H8  c O111:H8  d All of these  a 3.2  b 4.4  c 6.8  d 8.5  d 8.5  a Penicillium camemberti  b Aspergillus fumigatus  c Mucor  d All of these  a Botulism  b Aspergillus fumigatus  c Mucor  d All of these  a Botulism  b Measles  c Salmonellosis				
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47	10	Totalo like flavour in mink is eaused by		
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48 pH of milk is about  c 6.8 d 8.5  A Penicillium camemberti b Aspergillus fumigatus c Mucor d All of these a Botulism  b Measles intoxication c Salmonellosis			a	
Camembert cheese is inoculated with spores of  Camembert cheese is inocu	18	nU of milk is about	b	
Camembert cheese is inoculated with spores of  Camembert cheese is inocu	40	pri or mirk is about	c	
Camembert cheese is inoculated with spores of  Camembert cheese is inocu			d	8.5
Camembert cheese is inoculated with spores of c Mucor  d All of these a Botulism b Measles intoxication c Salmonellosis			a	Penicillium camemberti
50 intoxication is an important food borne intoxication in c	40	Comment change is inequalited with spaces of	b	Aspergillus fumigatus
50 is an important food borne intoxication intoxication is an important food borne intoxication intox	49	Camemoert cheese is inoculated with spores of	С	Mucor
50 intoxication is an important food borne b Measles c Salmonellosis			d	All of these
intoxication c Salmonellosis			a	Botulism
intoxication c Salmonellosis	50	is an important food borne	b	Measles
d None of the above	50		С	Salmonellosis
			d	None of the above

## IOM Key Section A: Food Microbiology and Immunology

No.	Answer								
1.	В	11.	C	21.	C	31.	D	41.	C
2.	В	12.	С	22.	D	32.	D	42.	A
3.	A	13.	В	23.	A	33.	В	43.	С
4.	В	14.	A	24.	В	34.	В	44.	В
5.	A	15.	D	25.	A	35.	A	45.	A
6.	В	16.	D	26.	A	36.	С	46.	A
7.	С	17.	С	27.	C	37.	A	47.	A
8.	A	18.	E	28.	C	38.	В	48.	C
9.	C	19.	В	29.	A	39.	В	49.	A
10.	A	20.	С	30.	A	40.	A	50.	A

## IOM Section C: Molecular Biology

S.No	Question	Choice	Answers
		a	DNA with both exons and introns must
			be used
		b	DNA without introns must be added
1	In order to clone eukaryotic DNA into prokaryotic	С	RNA with both exons and introns must
	cells		be used
		d	exons must be removed from
			eukaryotic DNA
		a	double-stranded eukaryotic cDNA
			from mature mRNA
	In the process of cloning eukaryotic DNA into	b	mature mRNA from precursor mRNA
2	prokaryotic cells, the role of reverse transcriptase is to	С	bacterial DNA from eukaryotic DNA
	make	d	double-stranded DNA with introns
			added back
		a	DNA with both introns and exons that
		u	can be cloned into prokaryotes
		b	DNA with only introns that can be
3	cDNA is		cloned into prokaryotes
		С	eukaryotic DNA with only exons that
			can be cloned into prokaryotes
		a	promoter region.
	The segment of the DNA molecule where messenger	b	sigma factor.
4	RNA synthesis begins is called the	c	transcription terminator.
	RIVA synthesis begins is canca the	d	polymerase.
			GACTG
	The complimentary messenger RNA strand that would be synthesized from the DNA base sequence of	a b	UGACU
5			AGTUG
	CTGAC would be	c d	GACUG
	The name of the structure that causes the synthesis of	a	promoter region
6		b	sigma factor
	RNA to cease is called the	С	transcription terminator
		d	Polymerase
		a	cut donor DNA evenly so smooth
		-	edges result
		b	cut donor DNA but do not affect
			plasmids
7	Restriction enzymes	С	make staggered cuts at specific
			sequences in DNA in both donor DNA
		1	and plasmid
		d	are used to incorporate plasmids into
			bacterial host cells
	The complimentary messenger RNA strand that would	a	GACTG
8	be synthesized from the DNA base sequence of	b	UGACU
	CTGAC would be	С	AGTUG
		d	GACUG
	****	a	it can only add bases to the exposed 5'
	Which of the following are limitations of DNA		end of a pre-existing strand
9	polymerase?	b	it can only replicate the leading strand
		С	it can only replicate the lagging strand
		1 4	none of the above
		d	
		a	DNA polymerase
10	The enzyme unzips and unwinds the DNA		DNA polymerase helicase
10	The enzyme unzips and unwinds the DNA molecule.	a	DNA polymerase

	T T		1 4 4 4 . 4 . 4 . 4
		a	the leading strand is replicated
			continuously, while the lagging strand
			is replicated discontinuously
	W. 1 . 6 . 1 . 6 . 1	b	the leading strand is replicated
11	Which of the following statements about DNA		discontinuously, while the lagging
	replication is TRUE?		strand is replicated continuously
		c	both the leading and lagging strands
			are replicated continuously
		d	both the leading and lagging strands
			are replicated discontinuously
		a	DNA condenses to form chromosomes
	Which of the following events do NOT occur in	b	nuclear membrane breaks down
12	prophase of mitosis?	c	nucleolus breaks down
		d	chromosomes are replicated
		a	centrioles.
13	The mitotic spindle fibers attach to chromosomes via	b	asters.
13	special structures termed	c	kinetochores.
		d	centrosomes.
		a	those attached to chromosomes
			elongate, while those that are
			unattached shorten
14		b	those attached to chromosomes
14	Which of the following statements about microtubules		shorten, while those that are
	during anaphase is TRUE?		unattached elongate
		c	both attached and unattached
			microtubules shorten
		d	both attached and unattached
			microtubules elongate
		a	phospholipids released by injured cells
15	Phagocytes are attracted by all of the following except	b	components of the complement system
13	r hagocytes are attracted by an of the following except	c	chemical products of microorganisms
		d	Lysosomes
		a	endocytosis
1.0	In phagocytosis the digested contents are eliminated	b	exocytosis
16	by	С	opsonization
		d	C3b
		a	is found only inside the bacterium
			is found only mistac the bacterium
			•
		b	being ingested
		b	•
17	A lysosome	b c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which
17	A lysosome		being ingested is an organelle that makes a bacterium motile
17	A lysosome		being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which
17	A lysosome	c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria
17	A lysosome	c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the
17	A lysosome	c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being
	A lysosome  Lysosomes are membrane-bound vesicles that arise	c d	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated
17		c d	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus.
	Lysosomes are membrane-bound vesicles that arise	c d a b	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria.
	Lysosomes are membrane-bound vesicles that arise	c d a b c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum
18	Lysosomes are membrane-bound vesicles that arise from the	c d a b c d	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus.
	Lysosomes are membrane-bound vesicles that arise	c d a b c d a	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic
18	Lysosomes are membrane-bound vesicles that arise from the	c d a b c d a b	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic hydrolytic
18	Lysosomes are membrane-bound vesicles that arise from the	c d a b c d a b c c	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic hydrolytic Melancholic
18	Lysosomes are membrane-bound vesicles that arise from the  The lysosome contains enzymes.	c d a b c d a a b	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic hydrolytic Melancholic brain cell
18	Lysosomes are membrane-bound vesicles that arise from the  The lysosome contains enzymes.  Which of the following cells will be expected to	c d a b c d a b b b	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic hydrolytic Melancholic brain cell skin cell
18	Lysosomes are membrane-bound vesicles that arise from the  The lysosome contains enzymes.	c d a b c d a a b	being ingested is an organelle that makes a bacterium motile contains lysozyme and proteases which digest bacteria contains enzymes specific to the receptors on the bacterium being eliminated nucleus. mitochondria. endoplasmic reticulum Golgi apparatus. photosynthetic Anabolic hydrolytic Melancholic brain cell

		0	one-fourth
	The number of chromosomes in daughter cells	a b	Half
21	produced by meiosis is the number of		
	chromosomes in daughter cells produced by mitosis.	c	equal to
		d	Twice
		a	nuclear membrane breaks down
		b	DNA organizes into chromosomes
22	Which of the following is unique to meiosis?	c	crossing-over
	which of the following is unique to inclosis.	d	chromosomes align along the central
			plate of the cell
		a	make more copies of DNA primers to
			increase protein synthesis
		b	make many copies of an organism's
			DNA sequence so a small number of
23	The purpose of PCR is to		organisms will become large enough to
			be identified
		С	make more RNA so large units of
			protein can be synthesized
		d	recycle DNA using thermocyclers
		a	loose ribonucleotides
	For DNA amplification to occur, which of the	b	RNA primers
24	following are needed?	c	thermostable DNA polymerase
	ionowing are needed.	d	b and c
		-	the end of free single-stranded RNA
		a	·
		b	any open point
25	Taq polymerase starts copying at	С	RNA primers attached to the end of the
		,	desired gene
		d	DNA primers attached to the end of
			the desired gene
		a	insert a plasmid into a bacterium
		b	isolate the DNA from the organism
26	The first step in cloning a gene is to		that contains the desired gene
		c	plate cells on agar
		d	treat plasmids with restriction enzymes
		a	restriction enzymes
27	Diagnida are not into hastorial calle has	b	DNA ligase
21	Plasmids are put into bacterial cells by	С	binding of cohesive sticky ends
		d	transformation
		a	20
20	How many different amino acids are found in	b	16
28	naturally-occurring proteins?	С	24
		d	64
		a	The complex of DNA and protein from
		-	which chromosomes are composed.
		b	The total genetic content of a cell.
		c	The proteins that give structural
29	Which of the following correctly describes chromatin?		support to a chromosome.
		d	Unpacked DNA; the form in which
		u	DNA exists when it is not tightly
			packed into chromosomes.
		-	
	Which of the following is a common feature of all	a b	Intracellular organelles
30	Which of the following is a common feature of all		A hydron mombrone
	cells?	C	A nuclear membrane.
		d	An RNA genome.
		a	3,000 - 4,000 genes.
		b	A genome that may be single or
31	Which of the following is a typical feature of viruses?		double-stranded DNA or RNA.
		c	The ability to replicate independently
		d	The ability to synthesize ATP

What is the main function of the smooth endoplasmic reticulum?  What is the main function of the smooth endoplasmic reticulum?  Which of the following is a purinc?  Which of the following is a purinc?  Which of the following replaces thymine in RNA  Which of the following replaces thymine in RNA  Which of the following replaces thymine in RNA  Which reaction in DNA replication is catalysed by DNA ligase?  Which reaction in DNA replication is catalysed by DNA ligase?  Which reaction in DNA replication is catalysed by DNA ligase?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Sugar found in RNA is  Base substitutions:  Base pairing of the template and the newly formed DNA strand  Formation of a phosphodicater bond between the 3'-OH of one Okazaki fragment and the 5'-phosphate of the newly formed DNA strand  A single amino acid residue is changed.  C A complete change in amino acid sequence from the point of the deletion.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A care always pathogenic  C Are always pathogenic  C Are always pathogenic  C Raibose  D Pou		1	1	
What is the main function of the smooth endoplasmic reticulum?  What is the main function of the smooth endoplasmic reticulum?  Which of the following is a purine?  Which of the following replaces thymine in RNA  Which reaction in DNA replication is catalysed by DNA ligase?  Which reaction in DNA replication is catalysed by DNA ligase?  During which phase of the cell cycle is DNA replicated?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Base substitutions:  Base substitutions:  Uracil  d Cytosine  a Adenine  b Guanine  c Uracil  d Cytosine  d Addition of new nucleotides to the leading strand.  b Addition of new nucleotides to the leading strand.  c Base pairing of the template and the enwly formed DNA strand  d Formation of a phosphodiester bond between the 3'-OHO of one Okazaki fragment and the 5'-phosphate of the next on the lagging strand.  a G1 phase.  c G2 phase.  d M phase  A Singla amino acid residue is changed.  b A single amino acid residue is changed.  c A complete change in amino acid sequence from the point of the deletion.  d A premarture termination of the chain at the point of mutation.  a May result in nonsense mutations  b Can affect splicing  c Are always pulhogenic  d Can affect gene expression  a Sugar, nitrogen - containing base and a phosphate molecule  c Monomer fat and polysaccharide  d Sugar found in DNA is  Bugar found in DNA is  Divided contains  Tributes  Drivente and the site of destruction of provided in DNA is  Drivente and the site of destruction of the chain at the point of mutation.  a Galactose  b Fructose  d Deoxyribose  d Caloxicose  b Fructose  c Ribose			a	It generates energy to drive other
What is the main function of the smooth endoplasmic reticulum?  Which of the following is a purine?  Which of the following replaces thymine in RNA  Which of the following replaces thymine in RNA  Which reaction in DNA replication is catalysed by DNA ligase?  Which reaction in DNA replication is catalysed by DNA ligase?  Which phase of the cell cycle is DNA replicated?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Sugar found in RNA is  Water found in RNA is  Proteins following their translation from RNA.  It symthesises proteins using RNA as a template and the list is the site of destruction of unwanted biological materials  Adenine  Lourseil  Cytosine  a Addition of new nucleotides to the leaging strand.  Addition of new nucleotides to the leaging strand.  Addition of new nucleotides to the leading strand.  The sum and the 5'-phosphate and the newly formed DNA strand  Formation of a phosphodicister bond between the 3'-OH of one Okazaki fragment and the 5'-phosphate of the next on the lagging strand.  A single amino acid residue is changed.  A complete change in amino acid sequence from the point of the deletion.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A can affect splicing  C are always pathogenie  C an affect spece expression  Sugar, nitrogen base  Descriptions— Can affect spece expression  A glactose  Descriptions— Can affec			1_	
what is the main function of the smooth encoplasme reticulum?  Which of the following is a purine?  Which of the following replaces thymine in RNA  Which of the following replaces thymine in RNA  Which of the following replaces thymine in RNA  Which reaction in DNA replication is catalysed by DNA ligase?  Which reaction in DNA replication is catalysed by DNA ligase?  Unacil d Cytosine  a Adenine  b Guanine  C Uracil d Cytosine  a Addition of new nucleotides to the lagging strand.  b Addition of new nucleotides to the lagging strand.  C Base pairing of the template and the newly formed DNA strand  fromation of a phosphodiester bond between the 3°-OH of one Okazaki fragment and the 5°-phosphate of the next on the lagging strand.  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  A complete change in amino acid residue is changed.  A permature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of mutation.  A premature termination of the chain at the point of the deletion.  A complete change in amino acid residue is changed.  C A can fi			b	
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Sugar found in DNA is   Sugar found in DNA is				
Which reaction in DNA replication is catalysed by DNA ligase?   C   Base pairing of the template and the newly formed DNA strand			a	
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Which reaction in DNA replication is catalysed by DNA ligase?   C   Base pairing of the template and the newly formed DNA strand			b	
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BNA ligase?    newly formed DNA strand   Growth of a phosphodiester bond between the 3*-OH of one Okazaki fragment and the 5'-phosphate of the next on the lagging strand.     a GI phase.     During which phase of the cell cycle is DNA replicated?   a GI phase.     During which phase of the cell cycle is DNA replicated?   b S phase.     c G2 phase.   d M phase     a No effect.     b A single amino acid residue is changed.     d A complete change in amino acid sequence from the point of the deletion.     d A premature termination of the chain at the point of mutation.     a May result in nonsense mutations     b Can affect splicing     c Are always proper outaining base and a phosphate molecule     c Monomer fat and polysaccharide     d Sugar, glycerol and phosphate     d Sugar found in RNA is     d Deoxyribose     d Jeoxyribose     d Jeoxyribose     d Jeoxyribose     d Galactose     b Fructose     c Ribose     c Rib	35		С	
between the 3'-OH of one Okazaki fragment and the 5'-phosphate of the next on the lagging strand.  36 During which phase of the cell cycle is DNA replicated?  37 During which phase of the cell cycle is DNA replicated?  38 What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  38 Base substitutions:  39 Nucleotide contains  40 Sugar found in RNA is  30 During which phase of the cell cycle is DNA replicated?  30 During which phase of the cell cycle is DNA replicated?  31 During which phase of the cell cycle is DNA replicated?  32 During which phase of the cell cycle is DNA replicated?  33 During which phase of the cell cycle is DNA replicated?  34 During which phase of the cell cycle is DNA replicated?  35 During which phase of the cell cycle is DNA replicated?  36 Daphase.  38 Daphase.  38 No effect.  39 A single amino acid residue is changed.  40 Can Argreature termination of the chain at the point of mutation.  40 A premature termination of the chain at the point of mutation.  41 Sugar, anitrogen base  42 Daphase.  43 Or Daphase.  44 Daphase  44 Sugar, anitrogen - containing base and a phosphate molecule  44 Sugar, anitrogen - containing base and a phosphate of alactose  45 Daphase.  46 A single amino acid residue is changed.  47 A complete change in amino acid sequence from the point of the deletion.  48 A single amino acid residue is changed.  49 Can affect splicing  40 Can affect splicing  40 Can affect splicing  40 Sugar, anitrogen - containing base and a phosphate molecule  40 Sugar, anitrogen and phosphate  40 Daphase.  40 Sugar found in RNA is  41 Sugar found in DNA is  41 Sugar found in DNA is	33	DNA ligase?		
Base substitutions:   Can affect splicing			d	
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During which phase of the cell cycle is DNA replicated?    C   G2 phase.				next on the lagging strand.
During which phase of the cell cycle is DNA replicated?    C   G2 phase.			a	G1 phase.
replicated?  replicated.  repli	26	During which phase of the cell cycle is DNA	b	
What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Base substitutions:  B	36		С	G2 phase.
What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Base substitutions:  B			d	M phase
What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Base substitutions:  B			a	
What would be the effect on the primary structure of the coded protein if a single base was deleted from a messenger RNA transcript?  Base substitutions:  B			b	A single amino acid residue is
the coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The coded protein if a single base was deleted from a messenger RNA transcript?  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the point of the deletion.  The code is a complete change in amino acid sequence from the deletion.  The code is a complete change in amino acid sequence from the deletion.  The code is a complete change in an interest in the point of the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the deletion.  The code is a complete change in the color of the change in the code in t		What would be the effect on the primary structure of		
sequence from the point of the deletion.  d A premature termination of the chain at the point of mutation.  a May result in nonsense mutations  b Can affect splicing  c Are always pathogenic  d Can affect gene expression  a Sugar, nitrogen base  b Sugar, a nitrogen - containing base and a phosphate molecule  c Monomer fat and polysaccharide  d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  40 Sugar found in RNA is  Sugar found in DNA is  c Ribose  c Ribose  c Ribose			С	
deletion.  d A premature termination of the chain at the point of mutation.  a May result in nonsense mutations  b Can affect splicing  c Are always pathogenic  d Can affect gene expression  a Sugar, nitrogen base  b Sugar, a nitrogen - containing base and a phosphate molecule  c Monomer fat and polysaccharide  d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  c Ribose	37			
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at the point of mutation.  a May result in nonsense mutations b Can affect splicing c Are always pathogenic d Can affect gene expression a Sugar, nitrogen base b Sugar, a nitrogen - containing base and a phosphate molecule c Monomer fat and polysaccharide d Sugar, glycerol and phosphate a Galactose b Fructose c Ribose  40 Sugar found in RNA is  Sugar found in DNA is  at the point of mutation.  a May result in nonsense mutations b Can affect splicing c Are always pathogenic d Can affect gene expression a Sugar, nitrogen - containing base and a phosphate molecule c Monomer fat and polysaccharide d Sugar, glycerol and phosphate a Galactose b Fructose c Ribose  41 Sugar found in DNA is  c Ribose			А	
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d Can affect gene expression  a Sugar, nitrogen base  b Sugar, a nitrogen - containing base and a phosphate molecule  c Monomer fat and polysaccharide  d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  c Ribose	38	Base substitutions:	_	
39 Nucleotide contains    A				
Nucleotide contains  b Sugar, a nitrogen - containing base and a phosphate molecule  c Monomer fat and polysaccharide  d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  c Ribose  c Ribose				
39 Nucleotide contains  a phosphate molecule  c Monomer fat and polysaccharide  d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose				<u> </u>
c Monomer fat and polysaccharide d Sugar, glycerol and phosphate a Galactose b Fructose c Ribose d Deoxyribose a Galactose b Fructose c Ribose c Ribose c Ribose c Ribose	20	N. dodin outdoo	D	
d Sugar, glycerol and phosphate  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose	39	Nucleotide contains		
40 Sugar found in RNA is    a Galactose     b Fructose     c Ribose     d Deoxyribose     a Galactose     b Fructose     c Ribose     d Deoxyribose     a Galactose     b Fructose     c Ribose				- · ·
40 Sugar found in RNA is  b Fructose c Ribose d Deoxyribose a Galactose b Fructose c Ribose			d	
40 Sugar found in RNA is  C Ribose  d Deoxyribose  a Galactose  b Fructose  c Ribose				
c Ribose d Deoxyribose a Galactose b Fructose c Ribose	40	Sugar found in RNA is	b	
41 Sugar found in DNA is  a Galactose b Fructose c Ribose		~ 55 I 10 6 II 1 II II II II		
41 Sugar found in DNA is  b Fructose c Ribose			d	•
41 Sugar found in DNA is c Ribose			a	
c Ribose	A1	Sugar found in DNA is	b	Fructose
d Deoxyribose	71	Sugar round in DIVA is	С	Ribose
			d	Deoxyribose

		a	pentose sugar
42	Deoxyribose is	b	hexose sugar
12		c	Pyrimidine of DNA
		d	Nitrogenous base
		a	tRNA
43	Contain an anti-codon	b	mRNA
43	Contain an anti-codon	С	rRNA
		d	cDNA
		a	Ribsome
44	Which of the following is not requirement for protein	b	Peptidyl transferase
44	synthesis	С	Sliceosome
		d	Amino acyl-tRNA synthetase
		a	Restriction enzymes
4.5	Enzyme required for transcription is	b	DNA polymerase
45		С	RNA polymerase
		d	RNAse
	Restriction enzyme capable of making internal cut in DNA is	a	Restriction exonuclease
		b	Restriction endonuclease
46		С	RNA polymerase
		d	RNAse
		a	blunt end
	Single stranded unpaired extensions formed by	b	sticky end
47	restriction enzyme upon cleavage is called	С	Flush end
		d	none of these
		a	Taq polymerase
40	All of the following are thermostable polymerase	b	Vent polymerase
48	expcept	С	DNA polymerase III
		d	pfu polymerase
		a	Denaturation
		b	annealing
49	The first step in PCR is	c	primer extension
		d	none of these
		a	Denaturation
	The process of binding of primer to denatured DNA	b	annealing
50	strand is called		renaturation
		c d	none of these
	1	u	none of those

IOM Key Section C: Molecular Biology

No.	Answer								
1	В	11	A	21	В	31	В	41	D
2	A	12	D	22	С	32	D	42	A
3	С	13	С	23	В	33	A	43	A
4	A	14	В	24	С	34	С	44	С
5	D	15	D	25	D	35	D	45	С
6	С	16	В	26	В	36	В	46	В
7	С	17	С	27	D	37	С	47	В
8	D	18	D	28	A	38	A	48	A
9	D	19	С	29	A	39	В	49	A
1	В	20	D	30	В	40	С	50	В

## IOM Section D: General Microbiology & Bacteriology

No.	Question	Choice	Answer
		a	Yersinia Pestis
1	Which of the following is a non-pathogen	b	Cryptococcus neoformans
1	which of the following is a non-pathogen	С	Anabaena spp
		d	Salmonella typhi
		a	Phospholipid plasma membrane
2	Prokaryotes are distinguished from eukaryotes by	b	Cytoplasm with ribosomes
2	their	С	Nucleoid instead of nucleus
		d	Membrane bound organelles
		a	in Mitochondria
3	Dibosomos are found in the sukerwatic call	b	Free in the cytoplasm
3	Ribosomes are found in the eukaryotic cell	С	On the endoplasmic reticulum
		d	All of the above
		a	Photosynthetic
4	Algae are always:	b	Blue-green
		С	Unicellular d. Eukaryotic
		a	Brightfield Microscope
E	Which of the following does not allow observation of	b	Darkfield Microscope
5	living cells?	С	Phase contrast microscope
		d	Fluorescent microscope
		a	Chloroplasts, mitochondria, golgi
			complex
		b	Chloroplasts, nucleoli,
6	Singular, small circular DNA is common to:		Mitochondria
0		c	Prokaryotes, nucleoli,
			Chromosomes
		d	Chloroplasts, Prokaryotes,
			Mitochondria
		a	Lipoprotein
7	Which of the following component is found in	b	Peptidoglycan
/	aracheobacterial cell walls?	С	Pseudopeptidoglycan
		d	Phospholipid
		a	Determined by growth medium
8	The arrangement of bacterial cells is	b	Caused by chemotaxis
8	The arrangement of bacterial cens is	С	A genetically determined trait
		d	All of the above
		a	Regulation of reproduction
9	The plasma membrane has many function, not	b	Monitoring of the environment
	including:	c	Replication of the chromosome
		d	Protection against osmoticysia
		a	Pleomorphic
10	Bacteria treated with lysozyme are:	b	Protoplasts
10		c	Capules
		d	Mycoplasma
_		a	Lag phase
11	Which of the following is not found in the growth	b	Log phase
11	curve?	С	Stationary phase
		d	Chemostat
		a	A source of trace element
12	Minimal media must contain;	b	Source of purine
12		С	Source of pyrimidines
		d	NaCl

Candle jars are used to culture			a	Anaerobes, oxygen
13 atmospheric				
14   Organisms that thrives in elevated carbondioxide are called:   15	13	atmospheric		·
Organisms that thrives in elevated carbondioxide are called:    Anaerobes   Calrophiles				_
Organisms that thrives in elevated carbondioxide are called:  Which of the following drug is used to treat fungal infections?  Which of the following drug is used to treat fungal infections?  Which of the following drug is used to treat fungal infections?  Pill/fimbrae are thin short appendages extruding from the cytoplasmic membrane of certain bacteria.  What organism is considered an index of fecal pollution of drinking water supplies?  What organism is considered an index of fecal pollution of drinking water supplies?  Protective mechanisms used by bacteria to survive in the host may be  Endotoxins are heat stable lipopolysaccharide-protein complexes which form the structural components of the cell wall of bacteria. Which of the following statement regarding endotoxin is correct?  Which concentration of ethanol is most effective for this purpose?  Which of the following are reservoirs for human infection  Which of the following are reservoirs for human infection  A A typical growth curve consists of 4 phases. Which is the correct sequence?  Which of the following are true about viruses?  Which of the following are true about viruses?  C Acrotolerant  C Aprophiles  erythromycin  b penicillin  c amphotericin  d Quinine  c amphotericin  d Quinine  b attechment  c DNA transfer  d a and b  E b atach  a Rota Virus  b E. coli  C Salmonella spp  Hepatitis E virus  a capsaties  of bacteria. Which of the following  are part of the same effect regardless of bacterial solurce  are found in both gram positive  and gram negative bacterial cell  wall  none of the above  a 100%  b 70%  c 50%  d 30%  o 60d and water  b humans  c animals  b humans  c animals  b humans  c stationary, exponential, lag, stationary, death  d lag, exponential, lag, death  d lag, exponential, lag, death  d lag, exponential, lag, death  d they are not composed of cells  b a virions they cannot metabolize nutrients				
called:    Caprophiles   Capro		Organisms that thrives in elevated carbondiavide are		1
Which of the following drug is used to treat fungal infections?  Which of the following drug is used to treat fungal infections?  Which of the following drug is used to treat fungal infections?  Pill/fimbrac are thin short appendages extruding from the cytoplasmic membrane of certain bacteria.  What organism is considered an index of fecal pollution of drinking water supplies?  What organism is considered an index of fecal pollution of drinking water supplies?  Protective mechanisms used by bacteria to survive in the host may be  Endotoxins are heat stable lipopolysaccharide-protein complexes which form the structural components of the cell wall of bacteria. Which of the following statement regarding endotoxin is correct?  Which concentration of ethanol is most effective for this purpose?  A typical growth curve consists of 4 phases. Which is the correct sequence?  A typical growth curve consists of 4 phases. Which is the correct sequence?  Which of the following are true about viruses?  C they alone cannot reproduce	14	· ·		
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Which of the following are reservoirs for human infection  21  Which of the following are reservoirs for human c animals  d all of the above  a exponential, lag, stationary, death lag, exponential, stationary, death correct sequence?  C stationary, exponential, lag, death d lag, stationary, exponential, death a they are not composed of cells b as virions they cannot metabolize nutrients  Which of the following are true about viruses?  C they alone cannot reproduce			d	30%
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infection  c animals d all of the above  a exponential, lag, stationary, death the correct sequence?  b lag, exponential, stationary, death c stationary, exponential, lag, death d lag, stationary, exponential, death a they are not composed of cells b as virions they cannot metabolize nutrients  Which of the following are true about viruses?  c they alone cannot reproduce	21	Which of the following are reservoirs for human	b	humans
d all of the above  a exponential, lag, stationary, death  b lag, exponential, stationary, death  c stationary, exponential, lag, death  d lag, stationary, exponential, lag, death  d lag, stationary, exponential, death  a they are not composed of cells  b as virions they cannot metabolize nutrients  Which of the following are true about viruses?  c they alone cannot reproduce	21		С	animals
A typical growth curve consists of 4 phases. Which is the correct sequence?  A typical growth curve consists of 4 phases. Which is the correct sequence?  B a exponential, lag, stationary, death consists of 4 phases. Which is the correct sequence?  C stationary, exponential, lag, death death lag, stationary, exponential, death a they are not composed of cells b as virions they cannot metabolize nutrients  Which of the following are true about viruses?  C they alone cannot reproduce				
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b as virions they cannot metabolize nutrients  Which of the following are true about viruses? c they alone cannot reproduce				
23 Which of the following are true about viruses?  c they alone cannot reproduce		 		
Which of the following are true about viruses?  c they alone cannot reproduce			U	
	22			
themselves	23	Which of the following are true about viruses?	c	
d they contain DNA or RNA			d	
- 11 - £ 4b ab			e	all of the above
A I SILVI THE SHOVE			C	an or the above

	1	1	I 1 1
		a	attachment, biosynthesis,
			penetration, maturation, release
		b	penetration, biosynthesis,
24	The correct sequence for the viral life cycle is:		attachment, maturation, release
		С	attachment, penetration,
			biosynthesis, maturation, release
		d	biosynthesis, attachment,
			penetration, maturation, release
		a	One eye piece
25	Compound microscope has:	b	Two eye pieces
23		С	One eye piece and one objective
		d	None of all
		a	Preserving cultures
26	Lyophilizer is used for:	b	Maintaining temperature
20	Lyophinzer is used for.	c	Sterilization
		d	None of the above
		a	By autoclaving
27	District the second of the sec	b	In hot air oven
27	Plastic wares are sterilized	С	By Tyndalization
		d	None of all
		a	121 °C/15 lb. pressure
		b	121 °C/115 lb. pressure
28	Autoclaving is done at:	c	121 °F/15 lb. pressure
		d	121 °F/115 lb. pressure
		a	Methylene blue
		b	Safranin
29	The principal dye in Gram Staining is:	c	Carbolfuchsin
		d	None of all
		a	Mordant
		b	Principal dye
30	Iodine is used in Gram staining as:	c	Decolourizer
		d	None of the above
		a	Special bacteria
	Caraial staining is used fam	b	Special virus
31	Special staining is used for:		1
		С	Special structures of bacteria
		d	None of all
		a	General purpose medium
32	MacConkey agar is:	b	Selective medium
	, ,	c	Transport medium
		d	All of the above
		a	Proteins
33	Agar agar in the medium is used to provide:	b	Minerals
		С	Vitamins
		d	None of all
		a	After Gram staining
34	Live bacterial cells can be examined	b	In dark field microscope
		С	In bright field microscope
		d	After special staining
		a	Purple colour
35	After Gram staining, G+ ve bacteria will be of:	b	Red colour
33	Ther Gram stammer, OT ve dacteria will be or.	c	Green colour
		d	Pink colour
		a	single dye is used
		b	simple dye is used
36	In simple staining method:		
		c d	only iodine is used  None of all
		a	None of all

	T		red colour
		a	
37	After simple staining, bacterial cells may be of:	b	blue colour
		С	violet colour
		d	All of all
		a	Salmonella
38	ZN staining is done for	b	Mycobacterium
36	214 staining is done for	С	Mycoplasma
		d	All of the above
		a	Selective medium
20	Nutrient again a	b	Basal Medium
39	Nutrient agar is a:	С	Differential medium
		d	None of all
		a	Anaerobic bacteria
		b	only halophiles
40	Anaerobic jar is used for the cultivation of:	c	only thermophiles
		d	All of the above
		a	burning
		b	culture contamination
41	Smoking is prohibited in microbiology lab due to:		
		С	chemical in lab.
		d	None of all
		a	motility
42	Cavity slide is used to study bacterial	b	shape
42	Cavity slide is used to study bacterial	С	staining reaction
		d	all of the above
		a	4 X
	Oil immersion lens has magnification power:	b	10 X
43		c	40 X
		d	100 X
		a	UV light
	Light source in bright field microscope is:	b	Infrared
44	Light source in origin held interoscope is.	c	blue light
		d	None of all
		a	171 °C
		b	171 °F
45	Beakers are sterilized at:		171 F 121 °C
		С	121 °F
		d	
		a	Crystal violet
46	Principal dye in Ziehl-Neelsen staining is:	b	Safranin
		С	Methylene blue
		d	None of all
		a	liquid medium
47	All is true about broth except:	b	solidify below 40 °C
r,	This are about broat except.	c	Enrichment
		d	source of nutrients
		a	Slope form
48	All is true about agar slant avecants	b	Preservation of cultures
48	All is true about agar slant except:	С	for anaerobic bacteria
		d	Solid medium
		a	Red
40		b	Colourless
49	Colour of G- ve bacteria after decolourizer	c	Blue
		d	Pink
	Which of the following is likely to contain structures	a	Spheroplasts
	composed of N-acetylmuramic acid and N-	b	Mycoplasmas
50	acetylglucosamine:		Escherichia coli
	acctyrgracosamme.	c d	
		u	Protoplasts

		a	Salmonella spp
	Typhoid in human beings is caused by:	b	Brucellaspp
51	Typhota in numum comgo is caused by.	c	E.coli
		d	Shigella spp.
		a	E.coli
	Quelling reaction is a rapid technique for the	b	Streptococcus spp.
52	identification of:	c	Staphylococcus spp.
		d	Mycoplasma spp.
		a	Protein A
	The followings are produced by Staphylococcus	b	Hemolysins
53	aureus except:	c	Leukocidins
		d	Tetnospasmin
		a	Pasteurella
٠		b	Salmonella
54	The following are non-spore forming genera except	c	Clostridium
		d	Mycobacterium
		a	Brucellamelitensis
	The following species of Brucella causes diseases in	b	Brucellasuis
55	goats:	c	Brucellacanis
		d	Brucellaabortus
		a	Staphylococcus
	The followings are Acid Fast negative bacteria	b	Streptococcus
56	except"	c	Mycobacterium
		d	Mycoplasma
		a	Corynebacterium
		b	Neisseria
57	DPT vaccination is done against:	С	Pasteurella
		d	Enterobacter
		a	OX-19
<b>50</b>	The followings strains of Proteus have cross reacting	b	OX-2
58	antigens with Rickettsia except:	c	OX-K
		d	OX-3
		a	Proteus
50	Det Pour Server 11 or	b	Clostridium
59	Botulism is caused by:	c	Bacillus
		d	Klebsiella
		a	E.coli
60	E-11- in the control of the control	b	Salmonella
60	Following genera are Gram negative except	c	Shigella
		d	Bacillus

IOM Key Section D: General Microbiology & Bacteriology

No.	Answer								
1	С	13	D	25	D	37	D	49	В
2	C	14	D	26	A	38	В	50	C
3	D	15	С	27	D	39	В	51	A
4	A	16	Е	28	A	40	A	52	В
5	D	17	В	29	D	41	D	53	D
6	D	18	A	30	A	42	A	54	С
7	C	19	A	31	C	43	D	55	A
8	С	20	В	32	В	44	D	56	С
9	В	21	D	33	D	45	A	57	A
10	В	22	В	34	В	46	D	58	D
11	D	23	E	35	A	47	В	59	В
12	A	24	С	36	A	48	С	60	D

#### Miscellaneous Miscellaneous Section A:

S.No	Question	Choice	Answers		
5.110	Question	a	White blood cells seen on urinalysis		
		a	sediment		
	Which of the following is not an indication for performing a	b	Isosthenuria		
1	urine culture?	c	Bacteria already visible on		
	urme curture.		urinalysis sediment		
		d	Glucosuria		
		a	Aspirin		
	Which of the following is not a treatment commonly used	b	Dietary protein restriction		
2	for protein losing nephropathies, such as glomerulonephritis	С	Angiotensin converting enzyme		
_	and amyloidosis, and their sequelae?		inhibitors		
	and unifferences, and uniff sequence.	d	Antibiotics		
	Which value is not usually increased in canine	a	Blood urea nitrogen		
	hyperadrenocorticism?	b	ALT (alanine amino transferase)		
3	hyperactionocornelism:	c	Serum cholesterol		
		d	SAP (serum alkaline phosphatase)		
			Type 1.7		
	If you had your choice, which blood type would you avoid	b	Type C		
4	administering in a cat for an emergency blood transfusion?		Type B		
		c d	Type A		
			Distended abdomen		
	Which is not a common clinical sign of	a b			
5	Which is not a common clinical sign of hyperadrenocorticism		Vomiting Increased panting		
	hyperadrenocorneishi	c d	Increased occurrence of infections		
		-			
	What is the most common tumor of the oral cavity in the	a b	Lymphoma		
6	cat?		Squamous cell carcinoma		
		С	Fibrosarcoma		
	A 10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	d	Melanoma		
	A 10 year old mixed breed dog presents for a 1 month	a	Mycoplasma felis infection		
	history of anorexia, lethargy, and inappetance. Physical	b	Anemia of chronic disease		
7	exam reveals pale mucous membranes and a mild	С	Babesiosis		
	tachycardia. The CBC shows an MCV of 50 cubic microns,	d	Congenital portosystemic shunt		
	MCH 12 pg, MCHC 25, HCT 22%, reticulocyte 40,000/uL.	e	Iron deficiency		
	What is the most likely diagnosis for this dog?		D'1 '1		
	Which of these is considered a hepatic leakage enzyme in	a	Bile acids		
8	the dog?	b	Aspartate aminotransferase		
		С	Bilirubin		
		d	Alkaline phosphatase		
	Which of the following is a complication of long term sling	a	Osteoarthritis		
9	application on a limb?	b	Pathologic fractures		
	**	С	Contracture of muscles		
ļ		d	Neurogenic muscular atrophy		
		a b	Tracheal stripe sign		
10	All of the following are radiographic signs suggestive of		Abaxial deviation of the main stem		
10	megaesophagus except		bronchi		
		С	Fluid or food distended esophagus		
		d	Gas filled esophagus		
		a b	Multicentric		
	What is the most common type of lymphoma seen in cats		Mediastinal		
11	that are positive for FeLV?	С	Thymic		
		d	Alimentary		
		e	Renal		

			- T
	Which of the following anesthetics has the least effect on	a	Ketamine
12	heart rate?	b	Diazepam
12	neur rute.	c	Thiopental
		d	Propofol
		a	Cysteine
	XXIII C.1	b	Silica
13	Which of these stones tends to form in alkaline urine?	С	Struvite (magnesium ammonium
		-	phosphate)
	<u> </u>	d	Calcium oxalate
			Avulsion of the tibial tuberosity
	A 471-7-1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	b	
1.4	A tibial plateau leveling osteotomy is performed in dogs to		Ruptured caudal cruciate ligament
14	correct for this.	c	Torn medial collateral ligament
		d	Torn medial meniscus
		e	Ruptured cranial cruciate ligament
		a	Neurologic signs
	I illustration according to the first of the fellowing in cotag	b	Pancreatitis
15	Lily toxicity results in which of the following in cats?	С	Renal failure
		d	Heart failure
		e	Liver failure
		a	Nocardia
	A dog presents to your clinic for an acute onset of sneezing	b	Pasteurella multocida
1.0	after running in a field. You look into the dog's nasal		
16	passage and remove a grass awn. What bacterial infection is	C	Actinomyces
	this dog predisposed to?	d	Clostridium tetani
		e	Staphylococcus aureus
		a	V, VII
	Closure of the eyes is mediated by granial nerve	b	VII, III
17	Closure of the eyes is mediated by cranial nerve and _	c	VII, V
	opening the eyes is mediated by CN	d	V, III
		e	III, VII
		a	Factor III
		b	Factor V
18	The synthesis of which of these clotting factors is	c	Factor IX
10	dependant on vitamin K?	d	Factor VIII
	-		Factor VII
		e	
	-	a	Left heart failure
	Which of the following is not a common sequela of	b	Systolic anterior motion of the
19	hypertrophic cardiomyopathy in cats?		mitral valve
	nypertropine cardioniyopatriy in cats.	c	Right heart failure
		d	Thromboembolism
	A 2 year old male Rottweiler presented for a intestinal	a	Pectineus muscle
	foreign body removal. The dog was taken to surgery for	b	Gracilis muscle
20	removal of the foreign body. What muscle should the	c	Gluteal muscle
	surgeon incorporate in to the closure of the abdominal	d	Preputialis muscle
	incision?	u	110putturis musere
		a	Metaphysis and physis
	A type III Coltan Hamis fronting involves what part of the	b	Epiphysis and physis
21	A type III Salter Harris fracture involves what part of the		117
	bone?	С	Metaphysis, physis, and epiphysis
		d	Metaphysis and epiphysis
		a	Metabolic Acidosis, Respiratory
			Alkalosis
	Interpret the following results from a 4 year ald f1	b	Metabolic Alkalosis, Respiratory
	Interpret the following results from a 4 year old female		Alkalosis
22	spayed dog: Base deficit= -8, Anion gap=18, pH 7.30,	С	Normal
	pCO2=29.	d	Metabolic Acidosis, Respiratory
			Acidosis
		e	Metabolic Alkalosis, Respiratory
		C	Acidosis Aikaiosis, Respiratory
			110100010

	T		T
		a	Broad spectrum antibiotics
		b	Ovariectomy
23	The treatment of choice for a intact female Doberman with	c	Uterine lavage and antibiotic
23	a closed pyometra is which of the following?		therapy
		d	Ovariohysterectomy
		e	Prostaglandin therapy
		a	Bacteria or white blood cells in the
			urine
	Which of the following is most suggestive of	b	Small, irregular kidneys on
24	pyelonephritis?		ultrasound
	F,F	С	Bacterial or white blood cell casts in
			urine.
		d	Pain on abdominal palpation
		a	6 months
	Once infected for what named of time is coming nonveyings	b	4-6 weeks
25	Once infected, for what period of time is canine parvovirus		
	usually shed?	c	7-10 days
		d	1-2 years
		a	Afterload
		b	Blood pressure in the cranial vena
26	Central venous pressure is a direct measure of		cava
20		c	Preload
		d	Stroke volume
		e	Venous blood volume
		a	Inhibition of hepatic microsomal
			enzymes
27	Which of these is not an important potential side effect of	b	Adrenal insufficiency
27	ketoconazole administration?	С	Anorexia
		d	Decrease GFR
		e	Elevated liver enzymes
	An owner just arrived from a camping trip with his dog. He	a	Rabies
	is worried about his dog who seems to have undergone a	b	Botulism
28	change in behavior after being attacked by a wild animal.	c	Tetanus
	Additionally, the owner thinks that the dog?s voice has	d	Canine Distemper
	actually changed. What is your top differential?	u	Cannie Distemper
	actually changed what is your top unfortunal.	a	Cystitis
		b	Anaphylaxis
29	Which of these is a major potential adverse side effect of	c	Ileus
2)	the chemotherapeutic drug, cyclophosphamide?	d	Nephrotoxicity
			Cardiotoxicity
		<u>e</u>	Grippotyphosa, pomona, bratislava
		a	
	Which are the most common serovars now thought to play a	b	Bratislava, candida,
20	role in canine leptospirosis?		irahemorrhagiae
30		c	icterohemorrhagiae, canicola,
			grippotyphosa
		d	Pomona, bratislava,
			icterohemorrhagiae
	Which of the following is not an adverse effect of	a	Hepatic toxicity
31	itraconazole administration in a dog?	b	Ulcerative skin lesions
31	in a dog:	c	Anorexia
		d	Nephrotoxicity
	Which of the following is not a treatment for	a	Lidocaine
22	Which of the following is not a treatment for a	b	Diltiazem
32	supraventricular tachycardia?	С	Atenolol
		d	Precordial thump
<u> </u>			1

		a	Boxer
	<u> </u>	b	Dalmatian
33	Which of the following breeds is not predisposed to dilated		Great Dane
33	cardiomyopathy?	c d	
			Doberman Pinscher
		e	Border Collie
	A 6 year old domestic short hair cat has just given birth to 3	a	Caesarean section
34	kittens. However, there are more kittens inside and four	b	Perform ultrasound
	hours have passed since the last kitten. What is the best	c	Administer calcium
	treatment option?	d	Administer oxytocin
		a	Dog and Cat: Adenocarcinoma
		b	Dog: Melanoma, Cat:
			Chondrosarcoma
35	What is the most common intranasal tumor in the dog and	c	Dog: Adenocarcinoma, Cat:
33	cat?		Lymphosarcoma
		d	Dog: Osteosarcoma, Cat: Melanoma
		e	Dog: Adenocarcinoma, Cat:
			Squamous cell carcinoma
		a	93 days
		b	73 days
36	Approximately, how long does pregnancy last in the dog	c	83 days
30	(starting from the day of ovulation)?	d	53 days
		e	63 days
			Episcleral injection
	Will be Cale and a large Plant to the control of th	a	
37	Which of these are you least likely to see in acute glaucoma	b	Corneal edema
	in a dog?	С	Pain
		d	Buphthalmos
	Meibomian glands produce which portion of the tear film?	a	Aqueous
38		b	Mucous
30		c	Immunoglobulins
		d	Lipid
		a	Corneal debridement & grid
	What is the appropriate treatment for an indolent eye ulcer		keratectomy
39	in a dog?	b	Enucleation
		c	Topical triple antibiotic with steroid
		d	Topical antivirals
		a	Great Dane
		b	Dachshund
40	Which of the following breeds is predisposed to acanthosis	С	Boxer
	nigricans?	d	Labrador Retriever
		e	Chihuahua
		a	Pancreatic infection
	What is the most common cause of exocrine pancreatic	b	Pancreatic acinar atrophy
41	insufficiency in the dog?	c	Pancreatic neoplasia
		d	Chronic pancreatitis
		a	Borrelia burgdorferi
	What is the conscisus scent of solmonii di	b	
42	What is the causative agent of salmon-poisoning disease?		Neorickettsia helminthoeca
		C	Rickettsia rickettsii
		d	Nanophyetus salmincola
		a	It is vectored by mosquitoes
43	How is Babesia spp. transmitted?	b	It is vectored by the Reduvid bug
.5		c	It is vectored by ticks
		d	It is transmitted fecal-orally
]	Which of these compounds is effective at indusing amosis	a	Acepromazine
	Which of these compounds is effective at inducing emesis in the dog?	b	Milk
44	in the dog?	С	Midazolam
		d	Apomorphine
		e	Bleach
L			1

		a	Decreased folate, increased
			cobalamin
	When measuring Vitamin B12 (Cobalamin) and Folate	b	Increased folate, increased
45	levels in a dog with suspected small intestinal bacterial		cobalamin
73	overgrowth, which finding is most supportive of this	c	Decreased folate, decreased
	diagnosis?		cobalamin
		d	Increased folate, decreased
			cobalamin
	Which of these tumor types is associated with causing GI	a	Lymphoma
	ulcers, perioperative hypotension, and coagulation	b	Mast cell tumors
46	abnormalities?	c	Melanoma
	wondrama	d	Hemangiosarcoma
		a	It can cause esophageal stricture
		а	formation if the drug remains in the
			esophagus for an extended time
	William of the Caller in the most to a state of the caller of the caller		period an extended time
477	Which of the following is not true about doxycycline used	1.	It can cause discoloration of teeth
47	in dogs?	b	
	-		and thin enamel in puppies
	-	c	It can cause gastrointestinal upset
		d	It can cause cartilage abnormalities
			in growing puppies
		a	Borrelia burgdorferi
48	What is the causative agent of Lyme disease?	b	Ehrlichia canis
		c	Bartonella henselae
		d	Rickettsia rickettsii
	A 13 year old male castrated domestic long hair cat presents	a	Duodenoscopy and biopsy
	for polyphagia, weight loss, and vomiting. The owner notes	b	Abdominal ultrasound
49	that the cat appears restless, more active, and more	c	Serum T4
	aggressive than before. Which test would diagnose the most	d	Liver panel
	likely cause for these signs?	e	Renal panel and urinalysis
		a	Mycoplasma spp.
	X7 1 1 1 1 1 1 XX71 1 1 1	b	Escherichia coli
50	You have just diagnosed a pyometra in a bitch. What is the	С	Staphylococcus spp.
	most commonly cultured culprit?	d	Proteus spp.
		e	Pasteurella multocida
		a	First degree atrioventricular block
	What does a PR interval of less than 0.10 seconds on the	b	Normal finding
51	ECG of a cat indicate?	c	Second degree atrioventricular
		•	block
		d	Sinus arrhythmia
		a	Horizontal Beam
52	•	<u>a</u> 	Left lateral
34	What is the best radiographic view to diagnose or rule out a	c	Dorsoventral
	gastric dilatation and volvulus?	d	Right Lateral
			Ventrodorsal
	A 2 year old male contrated mixed broad dee massents for an	<u>e</u>	L4-S3
	A 2 year old male castrated mixed breed dog presents for an altered goit ofter being hit by a corr On physical even the	a	
	altered gait after being hit by a car. On physical exam, the	b	C1-C5
53	thoracic limbs had decreased biceps and triceps reflexes and	C	C6-T2
	decreased muscle tone. The pelvic limbs had hyper-	d	T3-L3
	reflexive patellar and gastrocnemius reflexes and increased		
	muscle tone. Where is the spinal cord lesion?	-	Vamiting
	Which of those is not a service of court 1	a	Vomiting
54	Which of these is not a common sign of small bowel	b	Tenesmus
	obstruction in a dog?	c	Diarrhea
	obstruction in a dog.	d	Abdominal pain

			Truit .
		a	Tiletamine
	Which of these drugs can be used to reverse anesthesia	b	Yohimbine
55	induced by xylazine?	c	Medetomidine
	induced by Aylazine.	d	Flumazenil
		e	Naloxone
		a	Wenckebach
	A lethargic cat arrives with bradycardia. You decide to	b	Hyperkalemia
56	perform an ECG and see a lack of a P waves and a widened	c	Warfarin toxicity
	QRS complex. What do you suspect?	d	Hypercalcemia
	_	e	Mobitz Type-1 Block
	White Call Call is	a	Metabolic acidosis
	Which of the following is seen more commonly with acute	b	Anemia
57	renal failure than with chronic renal failure?	С	Hyperphosphatemia
		d	Anuria
		a	8 year old DSH male castrated, 7%
			dehydrated, serum BUN- 45,
			creatinine-2.7, urine specific
			gravity-1.050
		b	9 year old DSH male castrated, 5%
		-	dehydrated, serum BUN- 35,
	XXII. 1 C 4 C 11		creatinine-2.4, urine specific
	Which of the following cats could you do a water		gravity-1.010
58	deprivation test on; all are polyuric and polydipsic?	С	6 year old DSH, female spayed,
		-	adequately hydrated, serum BUN-
			10, creatinine-0.7, urine specific
			gravity-1.007
		d	5 year old DSH, female spayed,
			adequately hydrated, serum BUN-8,
			creatinine 0.9, urine specific
			gravity-1.040
		a	4 -5 years
50	Coming teath in small because of the Coming to the Coming teather than the Com	b	1year
59	Canine teeth in male horse erupt at the age of?	c	3 years
		d	10 years
		a	Adrenocortison
	Which hormone is responsible of pyometra in dog?	b	Progesterone
60	1 1,	c	Estrogen
		d	Insulin
		a	Keratoconjunctivitis (swelling
		•	around the eye)
61	In trichinosis/trichinellosis what will be effect on eye	b	Squamous Cell carcinoma
		c	Glaucoma
		d	Petechial hemorrhages
		a	Amputation of the limb
	A dog with femoral head and neck problem you cut the	<u>a</u> b	Euthanise the animal
62	head of femur. What will you advise to owner of dog?	c	Restrict motion
	The of tental title till you detibe to owner of dog.	d	None of the above
<u> </u>	A dog come to you with urinary obstruction for last six	a	Cystotomy
	hour or more. A few calculi come out of urethra along with	b	Uretrhostomy
63	blood in urine. When you press abdomen urine come out		Administration of diuretics
03	and whole bladder gets empty. What will be the next step	c	
	for management?	d	Maintain patency for urinary tract/
-	101 management:		fluid therapy  Complication of programsysgins
	A mare 7 year of age and never bred examined for vaginitis,	a 1-	Complication of pneumovagina
1		b	Insufficiency of progesterone
64	endometritis and cervicitis and you find that there is		
64	endometritis and cervicitis and you find that there is pooling of urine in vagina what is the cause?	c d	Malformation of genital tract  None of the above

		a	PGF <sub>2</sub> α
65	In pyometra of cow what will you give?	b	Progesterone
03		c	FSH
		d	None of the above
		a	Mycoplasma gallinarum
	Sinusitis in turkey is caused by;	b	Pseudomonas
66		С	E. coli
		d	Staph
		a	Cell wall breakdown
		b	Disturbance in gut absorption
67	Pharmacological action of Ivermectin is	c	PABA,GABA inhibition.
		d	None of the above
		a	Administration of oxytocin
	An old bitch having two pups got exhausted now straining	b	Administration of steroid
68	is minimum, on X-ray pups clear, your next action will be		
		C	Administration of Estradiol
		d	C-Section
	9-month dog with one testicle in perineum is presented to	a	do not use it
69	you, the owner wants to use that dog for breeding your	b	First operate it for cryptorchidism
	advice will be;	c	First give hormonal treatment
		d	None of the above
Ī		a	Mellanoma
70	Most sommon tumor of more reproductive treat is	b	Sarcoid
70	Most common tumor of mare reproductive tract is	С	Squamous cell carcinoma
		d	Granulosa cell tumor
		a	K
		b	Na
71	In gross tetany what is responsible for decreased absorption of Mg;	c	P
		d	Cl
		a	Administration of
	Ewe 3 weeks before due date showing pregnancy toxaemia,	а	dexa+fluids+glucose+increase
			ration
72	your management will be;	b	Induce the parturition
	your management will be,	c	C-Section
	-	d	
			Slaughter the animal
		a	250 days 260 days
73			1.26U days
	Length of gestation in cattle is	b	
	Length of gestation in cattle is	c	280 days
			280 days 300 days
	All excretions and secretions from the infected animal	c d a	280 days 300 days FMD
74	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen	c d	280 days 300 days FMD BVD
74	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs	c d a	280 days 300 days FMD
74	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen	c d a b	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above
74	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs	c d a b c	280 days 300 days FMD BVD Bovine respiratory syncytial virus
	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease	c d a b c d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above
74 75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs	c d a b c d a	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days
	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease	c d a b c d a b	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days
	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for	c d a b c d a b c c	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days
75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to	c d a b c d a b c d a a	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage
	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later	c d a b c d a b c d a b b	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion
75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to	c d a b c d a b c c d a b c c	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance
75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?	c d a b c d a b c d a b c d d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency
75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't	c d a b c d a b c d a b c d a a b c d a a b c d a a b c c d a a b c c d a a b c c d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a c c d d a a c c d d a a c c d d a a c c d d a a c c d d a a c c d d a c d d a c c d d a c c d d a c c d d a c d d d a c d d d a c d d d a c d d d a c d d d a c d d d d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy
75	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one	c d a b c d a b c d a b c d a b b c b c d b c d b c d b c d b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b c d d a b b d d a b b d d d a b b d d d d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin
75 76	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one by one calf is still alive, what will be your line of	c d a b c d a b c d a b c c d a b c c	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin Administration of Ca
75 76	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one	c d a b c d a b c d a b c d d a b c d d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin Administration of Ca C.Section
75 76	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one by one calf is still alive, what will be your line of	c d a b c d a b c d a b c d a a b c d a a b c d a a b c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a c c d d a a c c d d a a c c d d a a c c d d a a c c c d d a a c c c d d a a c c c d d a a c c c d d a a c c c c	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin Administration of Ca C.Section spayed female
75 76 77	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one by one calf is still alive, what will be your line of treatment?	c d a b c d a b c d a b c d d a b c d d	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin Administration of Ca C.Section spayed female intact female
75 76	All excretions and secretions from the infected animal contain virus, and virus may be present in milk and semen for up to 4 days before clinical signs appear, depicts picture of which disease  Estrus in mares lasts approximately for  A cow has calved with forced extraction and was going to its shed and shivered and slipped and could not get up later on, what is your tentative diagnosis?  A cow is presented for dystocia shoulder of the fetus can't pass the pelvic brim with one man pulling the legs with one by one calf is still alive, what will be your line of	c d a b c d a b c d a b c d a a b c d a a b c d a a b c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a b c c d d a a c c d d a a c c d d a a c c d d a a c c d d a a c c c d d a a c c c d d a a c c c d d a a c c c d d a a c c c c	280 days 300 days FMD BVD Bovine respiratory syncytial virus None of the above 18 days 7 days 10 days 22 days Obturator nerve damage Exhaustion Energy Imbalance Mg deficiency Fetotomy Administration of oxytocin Administration of Ca C.Section spayed female

			TT 1 1
	Cattle parasite of stomach which moves to other organs and	a	Hypoderma bovis
79	produces lesions is	b	Fasciola hepatica
		c	Dictylocaulus viviparous
		d	Lung worm
		a	T. Solium
80	Most dangerous parasite for man is	b	T. Saginata
00	112000 dailigo10000 parasito 101 main 10	С	D. Caninum
		d	None of the above
		a	His licence is at risk of suspension
		b	his licence will surely be suspended
	A vet has taken fee for euthanesia and treated the dog and		in some states
81	found a home for the dog	c	He has done a great job
			humanitarianly
		d	If owner has not signed a euthanesia
			paper he is saved
		a	Better feed intake
	Heat detection was a problem in a hard and it was solved	b	Less dystocia cases
82	Heat detection was a problem in a herd and it was solved what is the effect you will see afterwards	c	Reduced no of services per
	what is the effect you will see afterwards		conception
		d	All of the above
		a	teat dipping
0.2		b	Use of antibiotics
83	Coliform mastitis control will be achieved through	С	Dry cow therapy.
		d	None of these
		a	Parker-ker oversew
		b	Cushings
84	Which suture is an everted one	c	Lambert
		d	None of these
		a	IgA
	A calf is given enough colostrum in local infection which	b	IgG
85	Ab will act locally first	c	IgM
		d	All of them
		a	Administration of 1% mehtylene
			blue
86	In case of Nitrate Poisoning your first choice of Rx will be	b	Administration of fluids
00	in case of findace following your mist enoice of the win be	c	Administration of antibiotics
		d	Administration of diuretics
		a	prevention of urethral stones
	Ammonium chloride is added in sheep diets for	b	chronic pneumonia
87	Animomum emoride is added in sheep diets for	c	parasite infestation control
		d	improve feed intake
		a	Bring the cat and lable of
	If a cat has eaten the rodenticide eaten rat and is normal	a	rodenticide immediately to vet.
88	what is the advice to owner	b	Give Vit K
00	what is the advice to owner	c	Don't worry
		d	Give peroxide for vomiting
			diazepam
		a	prednisolon
89	Which drug doesn't cause appetitite stimulation	b	*
		С	cyproheptidine
		d	None of these
	Mark annual transcription of the state of th	a 1-	Squamous Cell Carcinoma
90	Most common intra occular tumour in cat is	b	Melanoma
		С	Granuloma
		d	All of them
		a	FSH and LH
91	PMSG and HCG are equivalant of	b	FSH and PGF2 alpha
		С	All of these
Í		d	None of these

			_
	In herd of cows 60 % of the cows are tested positive for	a	0-5%
92	Bovine leucosis, how many of them will show clinical	b	10-20%
)2	signs?	c	30-40%
	signs:	d	50%
		a	Bladder rupture
0.2	A dog has 72 hrs urethral obstruction death is due to	b	hypokalemia
93		С	hyperkalemia
		d	None of these
		a	7th and 8 <sup>th</sup> intercostal space
	Caudal lobe of the lung in cattle is ausculated at	b	12th and 13th intercostal space
94	Caudal love of the rung in cattle is ausculated at	c	Both a & b
		d	None of these
		-	destroy bedding
		a	
05	A dog has recovered from parvo when leaving the hospital	b	go for vaccination
95	what will you do	С	Advice owner for restricted animal
	·		movement
		d	None of these
	Hawk has eaten pigeon and developed trichomoniasis and is	a	x-ray of skull
96	OK after giving metroniodazole but now after 1 week	b	change drug to doxycyclin
	showing nervous signs, what will go for?	c	blood test for heavy metals
	showing her your signs, what will go for.	d	all of the above
	Which antihistic is not assumed the days of 0 months	a	Enrofloxacin
97	Which antibiotic is not recommended in dogs <6-8 months	b	Amoxy
97	age	С	Penicilline
		d	All of the above
		a	What is the age groups of goats
	A goat farmer wants to eradicate TB on his farm what question you will ask	b	Is there any goat with signs
98		c	How many goats do you have
		d	What feed you offer
		a	Body of the uterus
	Where do you deposit semen in artificial insemination in	b	Cervix
99	cow?		Vagina
	cow:	c d	Anywhere in reproductive tract
			Glucose
		a	
100	Fluid of choice for administration in diarrhoea	b	Sodium bicarbonate
		С	Fructose
		d	All of these
	You have administered Xylazin I/V in horse and there is	a	Cardiopulmonary arrest
101	sudden collapse what is the reason?	b	Nerve damage
101	sudden contapse what is the reason.	c	Brain Damage
		d	All of the above
		a	Stomach wall and uterus
102	Where are stricted muscles located?	b	Urinary bladder and intestine
102	Where are striated muscles located?	С	Ciliary body of the eye
		d	All of the above
		a	AV node, SA node, bundle of His,
			Purkinje fibers
		b	SA node, AV node, bundle of His,
105	In what order does the impulse for depolarization travel		Purkinje fibers
103	through the heart?	С	SA node, AV node, Purkinje fibers,
		-	bundle of His
		d	AV node, SA node, Purkinje fibers,
		ų.	bundle of His
		a	Neuroglia
	The type of cell responsible for the transmission of	b	Schwann
104	The type of cell responsible for the transmission of impulses through the nervous system is the		Neuron
	impuises unough the hervous system is the	C	
		d	Oligodendrocyte

			Di i i
		a	Phosphorus and magnesium
105	An imbalance of what minerals can affect nerve function?	b	Sodium and potassium
		С	Manganese and chromium
		d	Iron and zinc
		a	Bovine
106	What species is an induced ovulator?	b	Equine
100	what species is an induced ovulator?	c	Canine
		d	Feline
		a	Proestrus
107	In what stage of the estrous cycle does the corpus luteum	b	Estrus
107	develop?	С	Metestrus
		d	Diestrus
		a	Estrogen
		b	Progesterone
108	The hormone produced by a developing ovarian follicle is	c	Prolactin
		d	Oxytocin
		a	Estrogen
	What harmone contracts the famale reproductive treat to		
109	What hormone contracts the female reproductive tract to	<u>b</u>	Progesterone  Prolection
	help move spermatozoa into the oviducts?	C	Prolactin
		d	Oxytocin
		a	Endometrium
110	To achieve a normal pregnancy, the blastocyst attaches to	b	Placenta
110	what structure?	С	Oviduct
		d	Cervix
	From the estrous cycle to parturition, in what order are the following hormones released?	a	Estrogen, oxytocin, progesterone
111		b	Oxytocin, estrogen, progesterone
111		c	Estrogen, progesterone, oxytocin
		d	Progesterone, estrogen, oxytocin
		a	Cat
110		b	Dog
112	Which animal has a cotyledonary placenta?	С	Horse
		d	Sheep
		a	8–12
		b	12–14
113	How many mammary glands are typically found on a bitch?	c	4–6
		d	10–16
			Bronchodilation
	Which reaction is the result of parasympathetic nervous	a b	Pupil dilation
114	system stimulation?		*
	System sumulation:	c d	Decreased GI motility  Decreased heart rate
	Edward world model 11 1 1 1 1 1 1 1 C 11	a	Salt defi ciency
115	Edema would mostly likely develop during or after which	b	Dehydration
-	one of the following conditions	С	Low blood pressure
		d	Inactivity
		a	Increase lymphocyte production
116	Long-term use of glucocorticoids will	b	Increase plasma protein levels
110		c	Suppress the immune system
		d	Decrease blood glucose levels
		a	Popliteal nodes
117	Lymph nodes found on the caudal aspect of the leg at the	b	Inguinal nodes
11/	level of the patella are the	c	Mandibular nodes
		d	Prescapular nodes
		a	50 ml
110	A dog that weighs 10 kg would have approximately how	b	800 ml
118	much blood?	c	1.5 L
		d	2 L
	I .	u	1

n of the following is true about anaerobic metabolism?  ion is responsible for repolarization of a neuron gan action potential?  elets of Langerhans are found in the  is secreted by the	a b c d a b c d a b c d a b c d a b c d a b c d a b c d a a b c d a a b c d a	Lipogenesis Gluconeogenesis Glycogenolysis Fatty acid synthesis Fat can be used Glucose can be used It takes place in the mitochondria Oxygen must be present Potassium Calcium Magnesium Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
ion is responsible for repolarization of a neuron gan action potential?  Selets of Langerhans are found in the	c d a b c d a a b c d a a b c d d	Glycogenolysis Fatty acid synthesis Fat can be used Glucose can be used It takes place in the mitochondria Oxygen must be present Potassium Calcium Magnesium Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
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g an action potential?  slets of Langerhans are found in the  is secreted by the	a b c d a b c d d a b c d d	Oxygen must be present Potassium Calcium Magnesium Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
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g an action potential?  slets of Langerhans are found in the  is secreted by the	b c d a b c d a b c d a b c d	Calcium Magnesium Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
g an action potential?  slets of Langerhans are found in the  is secreted by the	c d a b c d a b c d	Magnesium Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
is secreted by the	d a b c d a b c d a	Glucose Spleen Pancreas Liver Kidney Kidney Hypothalamus Liver
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is secreted by the	b c d a b c d	Pancreas Liver Kidney Kidney Hypothalamus Liver
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is secreted by the	d a b c d	Kidney Kidney Hypothalamus Liver
·	a b c d	Kidney Hypothalamus Liver
·	b c d	Hypothalamus Liver
·	c d	Liver
·	d	
a could be caused by		1
a could be caused by	a	Adrenal cortex
a could be caused by		Decreased capillary blood pressure
a could be caused by	b	Increased plasma oncotic pressure
	С	Venous congestion
	d	Dehydration
	a	First-calf heifers
	b	Fat cows
Clinical ketosis in dairy cattle is most common in		
	C	Dairy bulls
	d	Steers
Milk fever in dairy cows is typically treated with	a	IV glucose
	b	IV calcium
	С	Atropine
	d	Antibiotics
	a	Renal disease
w musaus mambranas would suggest	b	Hepatic disease
w mucous membranes would suggest	С	Shock
	d	Dehydration
	a	Shock
	b	Anemia
illary refi ll time of 2 seconds would suggest	c	A healthy animal
	d	Dehydration
	-	
layer of bone tissue is necessary for attachment of	a	Periosteum
ents and tendons?	b	Endosteum
	С	Cartilage
	d	Meniscus
	a	4
	b	6
many air saes deas a chicken beye?	С	8
many air sacs does a chicken have?	d	9
many air sacs does a chicken have?	e	Intrahepatic venous plexus
many air sacs does a chicken have?		Duodenum
many air sacs does a chicken have?		Ilium
	h	Ileum
many air sacs does a chicken have?  n of these is not a division of the small intestine?	b	
	С	Jejunum
	c d	Dight Iridner:
	c d a	Right kidney
n of these is not a division of the small intestine?	c d a b	Gall bladder
	c d a	
	nany air sacs does a chicken have?	of these is not a division of the small intestine?  b c d e a b c

The hormone responsible for maintaining pregnancy is  The hormone responsible for maintaining pregnancy is  The structure produced immediately after an ovarian follicle has ruptured and released its ovum is the follicle has ruptured and released its ovum is the follicle has ruptured and released its ovum is the carnot follicle has ruptured and released its ovum is the follicle has ruptured and released its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot follicle has ruptured and eleased its ovum is the carnot				
132   The normone responsible for maintaining pregnancy is a composition of composition of the fellowing in the service of composition of the maintaining pregnancy is a composition of composition of the fellowing in the service of composition of the fellowing pressure and production of the fellowing pressure and production of the fellowing pressure and composition of the fellowing pressure and production of the fellowing pressure and composition of the fellowing pressure and production of the fellowing			a	Oxytocin
The structure produced immediately after an ovarian follicle has ruptured and released its ovum is the follicle has ruptured and released its ovum is the control of the structure produced by the control of the structure produced institute and oversial produced by the control of the structure produced institute and oversial produced institute a	133	The hormone responsible for maintaining pregnancy is	b	
The structure produced immediately after an ovarian follicle has ruptured and released its ovum is the follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has ruptured and released its ovum is the common follicle has represented a Equine Canine C	133	The normone responsible for maintaining pregnancy is	С	-
The structure produced immediately after an ovarian follicle has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and released its ovum is the collicit has ruptured and seminary studies and seminary collicit has ruptured and released its ovum is the			d	Progesterone
135   Follicle has ruptured and released its own is the			a	Corpus callosum
135   Follicle has ruptured and released its own is the	104	The structure produced immediately after an ovarian	b	Corpus luteum
135 Sperm cells are produced by the Sperm cells are produced by the Epididymis  2 Vas deferens 3 Sperm cells are produced by the Epididymis  2 Vas deferens 3 Seminal vesicles 4 Seminal vesicles 5 Feline 6 Seminal vesicles 7 Canine 8 Equine 8 Dosine 9 Setsus 9 Setsus 9 Setsus 136 The time period from the beginning of one heat cycle to the beginning of the next is called 137 The time period from the beginning of one heat cycle to the beginning of the next is called 138 The thorax is normally under 139 The two main minerals that make up bone are 140 Adult cattle have how many upper incisors? 140 Adult cattle have how many upper incisors? 141 The prepuce is also called the 142 Dogs have how many cervical, thoracic, and lumbar vertebrae? 143 The function of the red blood cell is to 144 Infl ammation of the mammary glands is termed 145 What organ is located immediately behind the diaphragm in the carmivore? 146 What organ is located immediately behind the diaphragm in the legiding minimizers and inverses the carmivore? 146 What organ is located immediately behind the diaphragm in the legiding minimizers and liver seed the carmivore? 147 What organ is located immediately behind the diaphragm in the legiding minimizers and liver seed the carmivore? 148 What organ is located immediately behind the diaphragm in the legiding minimizers and liver seed the carmivore? 148 What organ is located immediately behind the diaphragm in the legiding minimizers and liver seed the carmivore? 149 What organ is located immediately behind the diaphragm in the legiding minimizers and liver seed the carmivore? 150 Comine description in the legiding minimizers and liver seed the carmivore? 150 Comine description in the legiding minimizers and liver seed the legiding minimizers and liver seed the legiding minimizers and liver seed the liver seed the located immediately behind the diaphragm in the liver seed t	134		С	
Sperm cells are produced by the   Bejididymis		Tomore has repeated and released his overnite and		I.
Sperm cells are produced by the     D   Epididymis   C   Vas deferens   O   Vas deferens   O   Vas deferens   O   O   Seminal vesicles   O   Seminal vesicles   O   Seminal vesicles   O   O   Seminal vesicles   O   O   Seminal vesicles   O   O   Seminal vesicles   O   O   O   O   O   O   O   O   O				
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beginning of the next is called    C   Ovulation	107	The time period from the beginning of one heat cycle to the	b	
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The two main minerals that make up bone are    Calcium and potassium				
140   Adult cattle have how many upper incisors?		The two main minerals that make up bone are		
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Adult cattle have how many upper incisors?  Adult cattle have how do not have how do not cattle incisors.  Advisition of the flap increase the osmotic pressure within the vessels  Adult cattle have how many upper incisors?  Advisual Produce antibodies against bacteria and viruses  Act as a phagocyte  C Carry oxygen to the tissues  A Help increase the osmotic pressure within the vessels  Belpharitis  C Mastitis  A Entertitis  A Liver  By Spleen  the carnivore?  Advision of the mammary glands is termed  By Spleen  the carnivore?	137		С	
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Adult cattle have how many upper incisors?    C   4     d   0     a   Foreskin     b   Flap     c   Prostate gland     d   Glans penis     a   7,13,6     d   7,13,6     vertebrae?   c   6,13,7     d   7,13,7     a   Produce antibodies against bacteria and viruses     d   Help increase the osmotic pressure within the vessels     d   Help increase the osmotic pressure within the vessels     d   Help increase the osmotic pressure within the vessels     d   Entertitis     d   Entertitis     a   Liver     What organ is located immediately behind the diaphragm in the carnivore?     d   d   O     d   O			a	40
The prepuce is also called the  The prostate gland  Glans penis  a 7,13,6  Dogs have how many cervical, thoracic, and lumbar vertebrae?  C 6,13,7  d 7,13,7  A Produce antibodies against bacteria and viruses  B Act as a phagocyte  C Carry oxygen to the tissues  C Carry oxygen to the tissues  Help increase the osmotic pressure within the vessels  Help increase the osmotic pressure within the vessels  A Hepatitis  B Blepharitis  C Mastitis  D Blepharitis  C Mastitis  D Enteritis  A Liver  What organ is located immediately behind the diaphragm in the carnivore?  What organ is located immediately behind the diaphragm in the carnivore?	1.40	A 1 10 1	b	6
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The prepuce is also called the  The prestate gland  The Glans penis  The flap  The function of the red blood cell, thoracic, and lumbar and 7,13,6  The function of the red blood cell is to  The function of the red bloo			d	0
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The prepuce is also called the    C				
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The function of the red blood cell is to  The function of the red blood cell is to  C Carry oxygen to the tissues  d Help increase the osmotic pressure within the vessels  Blepharitis  Blepharitis  C Mastitis  C Mastitis  d Enteritis  a Liver  What organ is located immediately behind the diaphragm in the carnivore?  C Pancreas			d	
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143 The function of the red blood cell is to  c Carry oxygen to the tissues  d Help increase the osmotic pressure within the vessels  a Hepatitis  b Blepharitis  c Mastitis  d Enteritis  a Liver  What organ is located immediately behind the diaphragm in the carnivore?  c Pancreas				
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d Help increase the osmotic pressure within the vessels  144 Infl ammation of the mammary glands is termed  a Hepatitis  b Blepharitis  c Mastitis  d Enteritis  d Enteritis  what organ is located immediately behind the diaphragm in the carnivore?  C Pancreas	143	The fullction of the red blood cen is to	С	Carry oxygen to the tissues
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the carnivore? c Pancreas				
the carnivore? c Pancreas	145			
d Kidney		the carnivore?		
			d	Kidney

			G
		a	Symptoms, observations,
		1	assessment, plan
1.46	GOAD' 4	b	Subjective date, objective date,
146	SOAP is the acronym for		assessment, plan
		c	Streamlined operation action plan
		d	Synergistic outline alternative for
			prognosis
		a	55° F
147	The optimal temperature for housing most mammals and	b	65° F to 84° F
147	birds is	С	98.6° F
		d	100° F
		a	75
	How many milliliters of a drug with a concentration of 100	b	100
148	mg/ml should be given to a 75-lb dog at a dose of 1 mg/lb?	С	0.75
		d	0.34
		a	500
	How many tablets would you dispense for a 30-day supply	b	45
149	of a drug with a dose of one and one-half tablets three times	c	135
	daily?	d	90
	TPI (CF 122 '4 ' 1 1 1 4 41		
	The "French" unit is commonly used to express the	a	3 mm
150	diameter of a urinary catheter. Each French unit is	b	4 mm
	equivalent to 1/3 mm. What is the diameter of a 12 French	c	18 mm
	catheter in millimeters?	d	36 mm
	You have just administered an injection of 0.02 ml of	a	. 2
151	acepromazine (10 mg/ml). How many milligrams did you give?	b	0.2
131		c	20
		d	200
	What is the correct term for blood in the urine?	a	Hemolysis
150		b	Uremia
152		c	Hematuria
		d	Hemocentesis
		a	Leukemia
	What is the correct term for an increased leukocyte count	b	Leukopenia
153	not due to cancer?	c	Leukophilia
	not due to cancer.	d	Leukocytosis
		a	Uterus
		b	Testicle
154	What organ or area is affected by mastitis?	c	Hands
		d	Mammary gland
			Punch biopsy
	What is the comment town for sticking a mostle into a lement	a	* *
155	What is the correct term for sticking a needle into a lymph	b	Lymphostomy
	node and aspirating cells for examination?	C	Lymphocentesis
		d	Histopathology
		a	Nephritis
156	What is the correct term for an inflammation of the urinary	b	Cystitis
150	bladder?	c	Cystocentesis
		d	Cystouritis
		a	Mastotomy
157	What is the correct term for the surgical removal of a	b	Mastostomy
137	mammary gland?	С	Mastectomy
	<i>J S.</i>	d	Mammotomy
		a	Low erythrocyte count
4.50		b	Not eating
158	What does the term <i>anorexia</i> mean?	c	Depressed
		d	Abnormal heart rhythm
		u	2 ronormar neart myumii

		a	Ophthalmoscope
159	What is the correct term for an instrument used to examine	b	Laryngoscope
157	ears?	c	Laparoscope
		d	Otoscope
	What is the term for an inflammation of the brain and spinal cord?	a	Hydrocephalus
160		b	Encephalitis
100		С	Encephalomyelitis
		d	Epilepsy
		a	Melanoma
		b	Melanocarcinoma
161	What is the term that refers to a benign black tumor?	c	Melanosis
		d	Xanthoma
			Hematoscope
	-	a	*
162	What is the name of the device used to count blood cells?	b	Hemocytometer
		c	Hematometer
		d	Leukocytometer
		a	Splenomegaly
163	A dog's spleen is enlarged. What is the correct term for this	b	Hypoplasia
103	condition?	c	Analgesia
		d	Splenoplasia
		a	Cystogram
	What is the correct term for a radiograph taken with air in	b	Aerocystogram
164	the urinary bladder?	c	Electrocystogram
		d	Pneumocystogram
		a	Urethrotomy
	What is the correct term for surgically greating a new	b	Ureterostomy
165	What is the correct term for surgically creating a new opening into the urethra?		·
		C	Urethrostomy
		d	Urethrectomy
		a	Muscle and bone
166	Orthopedics is the medical specialty concerned with	b	Neoplasia
	orthopedies is the medical specialty concerned with	c	The reproductive system
		d	Aged animals
		a	Thrombus
167	What is the term for a blood clot that travels through the	b	Thromboembolus
107	circulation?	c	Embolus
		d	Stroke
		a	Kidney
4.40		b	Lens of the eye
168	A cataract is found in what structure?	С	Brain
		d	Reproductive tract
		a	Dystrophy
		b	Tachypnea Tachypnea
169	Which of the following terms means "difficult breathing"?		Pneumothorax
	· •	C	
-		d	Dyspnea
	What is the term for the procedure in which a sterile needle	a	Cystocentesis
170	is inserted into the chest and fluid is withdrawn into a	b	Thoracorrhagia
	syringe?	С	Pneumogenesis
	J 0	d	Thoracocentesis
		a	Oncology
171	What term refers to the medical specialty that deals	b	Neoplasology
1/1	primarily with tumors?	С	Neonatology
		d	Cancerology
		a	Gastrectomy
	A dog has swallowed a ball, and it is stuck in its stomach.	b	Gastrostomy
172	What is the name of the surgical procedure performed to remove it?	С	Gastrotomy
1		d	Gastropexy

What is the correct term for a drug administered to relieve pain?  A cat that has already delivered two kittens has another kitten stuck in the birth canal and is having difficulty giving birth to it. What term is used to describe this condition?  A cat that has already delivered two kittens has another kitten stuck in the birth canal and is having difficulty giving birth to it. What term is used to describe this condition?  Buppression of the flow of saliva is  Suppression of the fl				
Pain?   C   Antipyretic   Antitussive   An			a	Analgesic
Pain?   C   Antipyretic   An	173	I	b	
A cat that has already delivered two kittens has another kitten stuck in the birth canal and is having difficulty giving birth to it. What term is used to describe this condition?    175				
A cat that has already delivered two kittiens has another birt canal and is having difficulty giving birth to it. What term is used to describe this condition?    175			d	
kitten stuck in the birth canal and is having difficulty giving birth to it. What term is used to describe this condition?    175		Δ cat that has already delivered two kittens has another	a	
birth to it. What term is used to describe this condition?    Comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of saliva is   A prospecial comparison of the flow of	174		b	·
175   Suppression of the flow of saliva is   2   Sialoschesis	1/4			
Suppression of the flow of saliva is   Sialogen		onth to it. What term is used to describe this condition:	d	
176			a	
176	175	Suppression of the flow of solive is	b	
Difficulty standing is    Difficulty standing is   Difficulty standing is   Dyspnea	1/3	Suppression of the now of sanva is	С	Sialoadenitis
Difficulty standing is    Difficulty standing is   Dysphagia			d	Sialocele
Difficulty standing is    Difficulty standing is   Dysphagia			a	Dyschezia
Difficulty standing is    C	1776	75.00	b	·
177 Difficulty defecating is    A displaced or mal-positioned organ is referred to as   Dysphagia	176	Difficulty standing is	С	
Difficulty defecating is    A displaced or mal-positioned organ is referred to as   C Ectopic				* 1 *
Difficulty defecating is   Dyspnea				
178 Principly defecting is    C				·
A displaced or mal-positioned organ is referred to as  A displaced or mal-positioned organ is referred to as  A displaced or mal-positioned organ is referred to as  B Ecchymosis  C Ectopic  d Ectropion  a Ichthyoid  b Icteric  c Idiopathic  d Ichor  a Ostealgia  b Osteopathy  c Chondropathy  c Chondragia  d Chondropathy  a Salpingectomy  b Orchiectomy  c Hysterectomy  d Epistactomy  The medical term for declawing is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  Cryptorchidism is  A displaced or mal-positioned organ is referred to as  a Epistaxis  b Ecchymosis  c Ectopic  d Dicteric  c Idiopathic  d Ichtro  a Ostealgia  b Osteopathy  c Chondropathy  a Salpingectomy  b Orchiectomy  c Hysterectomy  d Episicotomy  d Digitectomy  c Plicectomy  d Onychectomy  a Torsion  b Volvulus  c Hernia  d Hemorrhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only	177	Difficulty defecating is		* 1
A displaced or mal-positioned organ is referred to as    Color   Color				
A displaced or mal-positioned organ is referred to as    C				
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The term that pertains to a jaundice color is    C				
180 A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  The surgical removal of the uterus is  The medical term for declawing is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  Cryptorchidism is  A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  B Ostealgia  B Osteopathy  C Chondralgia  A Chondropathy  a Salpingectomy  b Orchiectomy  c Hysterectomy  d Episiectomy  b Digitectomy  c Plicectomy  d Onychectomy  a Torsion  b Volvulus  c Hernia  d Hemorrhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only	179	The term that pertains to a jaundice color is		
A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  A disorder or disease of a bone is a/an  Chondraggia  Chondropathy  a Salpingectomy  b Orchiectomy  c Hysterectomy  d Episiectomy  a Phalangectomy  b Digitectomy  c Plicectomy  d Onychectomy  a Trorsion  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  Cryptorchidism is  Cryptorchidism is  A disorder or disease of a bone is a/an  B Ostealgia  B Ostealgia  C Chondralgia  C Horchiectomy  a Phalangectomy  b Digitectomy  c Plicectomy  d Hemoryhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only				
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The medical term for declawing is  The medical term for declawing is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term	101	The surgicul femo val of the ateras is	С	
The medical term for declawing is  The medical term for declawing is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia  The medical term for protrusion of an organ through the body wall is  C Hernia			d	Episiectomy
The medical term for declawing is  c Plicectomy d Onychectomy  a Torsion  The medical term for protrusion of an organ through the body wall is  C Hernia d Hemorrhoid a Removal of the testicles b Repair of a scrotal hernia c Having one testicle only			a	Phalangectomy
The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  Cryptorchidism is	182	The medical term for declaying is	b	
The medical term for protrusion of an organ through the body wall is  The medical term for protrusion of an organ through the body wall is  C Hernia  d Hemorrhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only	102	The medical term for declawing is	c	Plicectomy
The medical term for protrusion of an organ through the body wall is  Cryptorchidism is  The medical term for protrusion of an organ through the body wall is  C Hernia  Hemorrhoid  A Removal of the testicles  B Repair of a scrotal hernia  C Having one testicle only			d	Onychectomy
The medical term for protrusion of an organ through the body wall is  Cryptorchidism is  The medical term for protrusion of an organ through the body wall is  C Hernia  Hemorrhoid  A Removal of the testicles  B Repair of a scrotal hernia  C Having one testicle only			a	Torsion
body wall is  c Hernia  d Hemorrhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only	102	The medical term for protrusion of an organ through the		
d Hemorrhoid  a Removal of the testicles  b Repair of a scrotal hernia  c Having one testicle only	183			
184 Cryptorchidism is  a Removal of the testicles b Repair of a scrotal hernia c Having one testicle only		·		
184 Cryptorchidism is  b Repair of a scrotal hernia c Having one testicle only				
c Having one testicle only				
	184	Cryptorchidism is		1
I d I Having one or more ectoric testicles			d	Having one or more ectopic testicles

	Т		m1 1 .
		a	The emasculatome removes the
			testicle, whereas the emasculator does
			not.
		b	A skin incision is not made before
			using the emasculator but is required
	What is the difference between an emasculatome and an		when using the emasculatome.
185	emasculator?	c	The emasculatome crushes the
	emasculator:		spermatic cord, whereas the
			emasculator crushes and cuts the
			spermatic cord.
		d	The emasculator is used for cattle
			only; the emasculatome is used for
			horses only.
		a	Full body numbness
	If it is accidentally administered as an IV bolus, lidocaine	b	Seizures
186	may cause	c	Bradyarrhythmia
	may cause	d	Polyuria
		a	Polyuria
		b	
187	What is not a short-term effect of corticosteroid therapy?		Polyphagia
		С	Delayed healing
		d	Osteoporosis
		a	Liver
188	Most biotransformation of drugs occurs in the	b	Kidney
100	or o	c	Lungs
		d	Spleen
	Which of these tissues is not a normal site for drugs to	a	Pancreas
189	Which of these tissues is not a normal site for drugs to	b	Fat
109	accumulate to be released later, thereby prolonging the	С	Muscle
	effect of the drug?	d	Liver
		a	Ketamine
400		b	Diazepam
190	What drug is in the same class as thiopental?	c	Phenobarbital
		d	Atropine
		a	Yohimbine (Yobine)
	All of the following drugs are antagonists, used to reverse	b	Detomidine (Dormosedan)
191	the effects of another drug except		Atipamezole (Antisedan)
	the effects of another drug except	c d	Naloxone (Narcan)
		a	None; the equine and bovine doses of
400	A cow is accidentally dosed with an equine dose of	1	xylazine are the same
192	xylazine. What drug should be immediately administered?	b	Epinephrine
	, and the second	С	Naloxone
		d	Yohimbine
		a	Suppress a productive cough
		b	Liquefy and dilute viscous secretions
			in the respiratory tract
193	An expectorant is a drug that acts to	С	Suppress inflammatory cells in the
	-		respiratory tract
		d	Reduce the allergic component of
			respiratory disease
		a	Cyclosporine
	Which of the following drugs does not have an	b	Azathioprine (Imuran)
194	immunosuppressive effect?	c	Prednisone Prednisone
		d	Ivermectin
			Diarrhea
		a	
105	Triple sulfas were developed to the avert that was/were	b	Crystalluria
195	seen with single sulfonamide toxicity.	C	Bronchospasms
	-	d	Seizures

		a	Mask
	Which of the following do/does not have to be sterile	b	Drapes
196	during a surgical procedure to maintain aseptic technique?	c	Instruments
	during a surgicul procedure to maintain asoptic technique.	d	Gloves
		a	Count the gauze sponges in the pack.
	Before starting the surgical procedure, the technician who	b	Arrange the instruments to be quickly
197	has scrubbed in with the surgeon should do all of the	U	and easily located.
197	following except		Place the scalpel blade on the handle.
	Tollowing except	d d	
			Open the suture material.  Once the newborns are removed, the
		a	mother is out of danger, and most of the technician's attention should be on the newborns.
		b	A cesarean section is also known as a hysterotomy
198	All of the following statements regarding cesarean sections	С	For some breeds of dogs, such as the
	are true except	-	English bulldog, it is expected that a cesarean section will need to be performed.
		d	Wait to put the mother with the
			newborns until after she has
			adequately recovered from anesthesia.
		a	Paw
	The animal is to be prepared for an ovariohysterectomy.	b	Ventral chest wall
199	What part of the body is prepped?	c	Ventral abdomen
	what part of the body is prepped.	d	Ear
		a	Orchidectomy
	Which of the following is not considered on elective	b	Ovariohysterectomy
200	Which of the following is not considered an elective procedure?		
	procedure?	C	Onychectomy
		d	Enucleation of a proptosed eye
		a	00 gut, 3 vidyl, 1-chronic gut, 6-0 silk
		b	1 chromic gut, 00 gut, 3-0 vidyl, 6-0
201	Rank the following from greatest tensile strength to least.	c	silk 6-0 silk, 3-0 vidyl, 00 gut, 1-chronic
			gut
		d	6-0 silk, 3-0 vidyl, 1-chronic gut
		a	Swaged-on
202	What needle type is reusable?	<u>b</u>	Taper point
1 202		c	Trocar tip
		d	Eyed
		a	Heart rate only
		b	Respiration rate and depth
203	What parameter(s) does the pulse oximeter measure?	С	Oxygen saturation of hemoglobin and heart rate
		d	Respiration rate and heart rate
		a	Wounds induced by the animal itself
		b	Patient-caused additional trauma to an
		-	existing wound
204	What is meant by the term <i>iatrogenic</i> ?	c	Patient-caused additional trauma to a
		A	surgical incision, generally licking
		d	Induced or caused by the veterinary
			surgeon or staff
	Wiles in a manufactural state of the state o	a	Contamination
205	Why is a recent surgical wound usually slightly	b	Debridement
	warmer than surrounding normal tissues	C	Infection
		d	Inflammation

			In .
		a	Prolene
206	Which of the following is an absorbable suture?	b	Vicryl
	The state of the folio wang is an accordance sature.	С	Mersilene
		d	Silk
		a	Simple continuous
207	If skin edges are under extreme tension (e.g., in a large skin wound), what is the suture pattern of choice?	b	Simple interrupted
207		c	Interrupted horizontal mattress
		d	Continuous horizontal mattress
		a	To keep tissues apposed for quick
			healing
	What is the purpose of using a subcuticular suture pattern	b	To eliminate small scars produced
208	for final closure?		around
	for final closure:	c	suture holes of the more common
			patterns
		d	To eliminate infection
		a	Cushing
200	What sytum nottom would not be used to alone skin?	b	Horizontal mattress
209	What suture pattern would <i>not</i> be used to close skin?	С	Simple interrupted
		d	Ford interlocking
		a	3-0, 2-0, 0, 1, 2, 3
210	Which of these sequences correctly lists suture material	b	000, 00, 0, 1, 2, 3
210	diameter, from largest to smallest?	С	3, 2, 1, 1-0, 2-0, 3-0
	, ,	d	7-0, 5-0, 3-0, 1
		a	The suture material is more easily
			tangled.
	<i>Memory</i> is defined as a suture material's ability to resist bending forces and to return to its original configuration.	b	The suture material is difficult to knot
211			securely.
	This can cause what problem when suturing?	С	The suture breaks more readily.
	β	d	The suture is more likely to cause
		-	infection.
		a	Operative personnel
	The main goal of aseptic surgical technique is to prevent	b	Surgical instruments
212	contamination of the	С	Surgical wound
		d	Surgical drapes
		a	Open
		b	Closed
213	The preferred method for gloving is	c	Assisted
		d	Double
		a	Ovariohysterectomy
		b	Nephrotomy
214	An example of an elective procedure is	С	Exploratory laparotomy
		d	Thyroidectomy
			In excitable dogs that need immediate
		a	calming
		b	In young female dogs that the owners
		υ	wish Rendered sterile
215	Ovariohysterectomy is routinely Performed	2	
		С	In male dogs with female characteristics
		.a	Exclusively in female dogs who have
		d	
		_	already had litters of puppies
		a	Artery
216	The term <i>arthrotomy</i> refers to an incision into A/an	b c	Joint
			Muscle
		d	Long bone

		a	To remove them completely from the
			body
217		b	When blood flow needs to be stopped
217	Blood vessels are ligated	С	Using trauma to coagulate the blood
		d	Rarely and in emergency situations
			only
		a	Is important because dry tissues are
			less resistant to bacterial infection
		b	Is undesirable because wet tissue is an
218	Keeping tissues moist during a surgical procedure		ideal medium for bacterial
210			regeneration
		С	Is of little value
		d	Should be accomplished with 70%
			isopropyl alcohal
		a	Swelling or expansion
219	Torsion of an organ or part refers to	b	Inflation with fluid
219	Torsion of all organ of part felers to	c	Inflation with gas
		d	Twisting or rotation
		a	Contains living tissue
		b	Covers the tooth crown and root
220	Enamel, which is the hardest body substance	С	Continues production by the
			ameloblasts after eruption
		d	Is relatively nonporous and impervious

**Key Miscellaneous Section A:** 

No.	Answer								
1	D	51	В	101	A	151	В	201	В
2	D	52	D	102	D	152	С	202	D
3	A	53	С	103	В	153	D	203	С
4	С	54	В	104	С	154	D	204	D
5	В	55	В	105	В	155	С	205	D
6	В	56	В	106	D	156	В	206	В
7	Е	57	D	107	С	157	С	207	С
8	В	58	С	108	A	158	В	208	A
9	С	59	A	109	D	159	D	209	A
10	В	60	В	110	A	160	С	210	С
11	В	61	A	111	С	161	A	211	В
12	D	62	С	112	D	162	В	212	С
13	С	63	D	113	A	163	A	213	В
14	Е	64	С	114	D	164	D	214	A
15	С	65	A	115	D	165	С	215	В
16	C	66	A	116	C	166	A	216	В
17	В	67	C	117	A	167	В	217	В
18	C	68	D	118	В	168	В	218	A
19	С	69	A	119	D	169	D	219	D
20	D	70	D	120	В	170	D	220	D
21	В	71	A	121	A	171	A		
22	A	72	A	122	В	172	С		
23	D	73	C	123	A	173	A		
24	A	74	A	124	C	174	С		
25	С	75	D	125	В	175	A		
26	В	76	A	126	В	176	D		
27	D	77	D	127	В	177	A		
28	A	78	D	128	С	178	С		
29	A	79	A	129	A	179	В		
30	С	80	С	130	С	180	В		
31	D	81	D	131	В	181	С		
32	A	82	С	132	В	182	D		
33	Е	83	В	133	D	183	С		
34	D	84	D	134	В	184	D		
35	С	85	A	135	A	185	С		
36	Е	86	A	136	С	186	С		
37	D	87	A	137	A	187	D		
38	D	88	A	138	D	188	A		
39	A	89	В	139	С	189	A		
40	В	90	A	140	D	190	С		
41	В	91	A	141	A	191	В		
42	В	92	A	142	D	192	D		
43	С	93	С	143	С	193	В		
44	D	94	A	144	С	194	D		
45	D	95	A	145	A	195	В		
46	В	96	В	146	В	196	A		
47	D	97	A	147	В	197	D		
48	A	98	В	148	С	198	A		
49	С	99	A	149	C	199	C		
50	В	100	В	150	В	200	D		

## **Miscellaneous Section B:**

S.No	Question	Choice	Answers
		a	Holding at 72° C for 15 seconds
	Lyophilization is	b	Competitive inhibition
1		С	Freeze-drying
		d	Sterility testing
		a	Are resistant to heat and desiccation
		b	Are a form of asexual reproduction
2	Bacterial endospores	c	Are a consequence of mating
		d	Are highly susceptible to antiseptics
		a	Crystal violet
		b	Iodine
3	In the Gram stain procedure, the mordant is	c	Alcohol
		d	Safranin
		a	Monocytes
		b	B cells
4	The humoral immune system involves	c	T cells
		d	Erythrocytes
<b> </b>		a	Endemic
		b	Nosocomial
5	A hospital-acquired disease is	c	Ergasteric
		d	Epidemic
		a	Chemotaxis
		b	Adherence
6	Phagocytosis does not involve	c	Ingestion
		d	Antibiosis
		a	Destroys toxins
		b	Inhibits viruses
7	What is the function of interferon?		Kills bacteria
		c d	Inactivates protozoa
			1
		a b	3
8	Most bacteria grow best at pH		9
		c d	7
		-	Glucose
	What laboratory tast evaluates kidney function and is a	a b	SGTP (ALT)
9	What laboratory test evaluates kidney function and is a breakdown product of protein?		Creatinine
	oreakdown product or protein:	c d	BUN
<b> </b>		a	Hydration level
		b	Amylase concentration
10	Creatinine concentrations in serum are influenced by	c	Liver disease
		d	Insulin production
<u> </u>			The amount of carbohydrate ingested
		a b	The amount of carbonydrate figested  The amount of protein ingested
11	Nonrenal causes of increased levels of urea might include	c	Insuffi cient insulin
		d	Insuffi cient ADH
<u> </u>		a	ALT
	When avaluating the liver of dogs and sate AST should be	b	Lipase
12	When evaluating the liver of dogs and cats, AST should be		LDH
	evaluated in conjunction with	c	Glucose
		d	
		a	Bicarbonate
13	Which of the following ions is a cation?	b	Hydroxide
		С	Chloride
		d	Potassium

		a	49%
		b	59%
14	What percentage of the body's calcium is in bone?	С	79%
		d	99%
		a	Ion-specific electrodes
15	Electrolytes are commonly massured by what method?	b	Refractometry
15	Electrolytes are commonly measured by what method?	С	Adsorption
		d	Enzymatic digestion
		a	Dogs
	Normal voided urine is clear, except in which of the	b	Cats
16	following species?	С	Horses
		d	Cows
		a	Total WBC count
	Which of the following tests is not included in a routine	b	Differential WBC count
17	CBC?	c	Total protein
	CDC:	d	Reticulocyte count
			percent
		b	g/dl
18	MCHC is expressed in		ŭ
		c d	mg/dl
			mg/L
		a	Lymphocytes
19	The first phagocytes to respond to an infection are	b	Neutrophils
		c	Monocytes
		d	Eosinophils
		a	Lymphocytes
20	Which of the following cells is usually associated with a	b	Neutrophils
20	chronic infection or inflammation?	c	Monocytes
		d	Eosinophils
		a	Agglutination
21	The third line of defense against foreign invaders in the	b	Infl ammation
21	body is	c	Specific immunity
		d	Interferon production
		a	The masking of a trait by another trait
		b	Traits that are due to the interaction
			of several pairs of alleles
22	Epistasis is	С	A cross in which each allele makes a
			comparable contribution to the trait
		d	A cross of three alleles over two
			alternate alleles
		a	Inoculation of blood agar
	The second in the second of th	b	Antimicrobial susceptibility testing
23	The most important laboratory procedure for microbiologic	c	Direct microscopic examination of
	diagnosis is		the specimen
		d	Serologic testing
		a	Dogs
		b	Horses
24	The platelets of what species tend to clump easily?	c	Cats
		d	Cows
		a	Granulocytes
		b	Lymphocytes
25	What cells are phagocytic?	c	Neutrophils and macrophages
		d	Macrophages and lymphocytes
		a	Rubricyte
		b	Metarubricyte
26	What is the most immeture anythrogyte?		Rubriblast
20	What is the most immature erythrocyte?	d d	
		u	Reticulocyte
			1

What are the two diagnostic forms of Giardia?    Box   Memzzolics and schizonts			a	Cysts and trophozoites
28   Serology tests can detect heartworms in a dog's blood   Cova and L3 larvae   Immediately after becoming infected   Everal days after becomi				
Serology tests can detect heartworms in a dog's blood   Several days after becoming infected	27	What are the two diagnostic forms of Giardia?		
Serology tests can detect heartworms in a dog's blood  28 Serology tests can detect heartworms in a dog's blood  29 Stravite crystals is another name for  20 Stravite crystals is another name for  20 Stravite crystals is another name for  20 Mucus is normally often seen in urine.  21 Skin scales and infected hair samples are mixed with to dissolve the debris and aid in microscopic examination for fungal elements.  20 What agar is used for antimicrobial susceptibility testing?  21 What ion increases with malignancy, particularly with lymphosarcoma?  22 What ion increases with malignancy, particularly with lymphosarcoma?  23 If a test result is a false positive, it means that the result is ecase is present by Phosphorus  24 Calcium  25 Pood allergies are best treated with  26 Outside the reference range and the disease is present of t				
Serology tests can detect heartworms in a dog's blood   C   Several weeks after becoming infected   C   Several weeks after becoming infected   d   Columbrater systals   C   Triple phosphate crystals   d   Amorphous phosphate crystals   d   Amorphous phosphate crystals   d   Amorphous phosphate crystals   d   Dog   b   Horse   C   Cat   d   Cow   d   Hydrogen peroxide   d   Cow   Hydrogen peroxide   d   Cow   Hydrogen peroxide   d   Potassium hydroxide   d   Ritigler iron agar   d   Kitigler iron agar   d   Kitigler iron agar   d   Kitigler iron agar   d   Calcium   d   Potassium   d   Potassi			-	
Serology tests can detect heartworms in a dog's blood    Color		Serology tests can detect heartworms in a dog's blood		
Serology tests can detect neartworms in a dog's blood				
Strivite crystals is another name for   Calcium oxalate crystals	28		c	_
Stravite crystals is another name for   Calcium carbonate crystals				
Strivite crystals is another name for			d	_
Strawite crystals is another name for				
String the Crystals is another name for   C				·
Mucus is normally often seen in urine.    Cat	29	Struvite crystals is another name for	b	i i
Mucus is normally often seen in urine.    Skin scales and infected hair samples are mixed with to dissolve the debris and aid in microscopic examination for fungal elements.   Skin scales and infected hair samples are mixed with to dissolve the debris and aid in microscopic examination for fungal elements.   What agar is used for antimicrobial susceptibility testing?	2)	Struvite Crystats is another name for	c	Triple phosphate crystals
Mucus is normally often seen inurine.   b			d	Amorphous phosphate crystals
Skin scales and infected hair samples are mixed with _ to dissolve the debris and aid in microscopic examination for fungal elements.   A cetic acid   Department			a	Dog
Skin scales and infected hair samples are mixed with	20	M	b	Horse
Skin scales and infected hair samples are mixed with to dissolve the debris and aid in microscopic examination for fungal elements.  What agar is used for antimicrobial susceptibility testing?  What agar is used for antimicrobial susceptibility testing?  What ion increases with malignancy, particularly with lymphosarcoma?  What ion increases with malignancy, particularly with lymphosarcoma?  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels because EDTA forms a complex with it.  EDTA plasma cannot be used for testing plasma levels be Phosphorus C Calcium  d Potassium  d Potassium  D Phosphorus  C Calcium  d Potassium  d Within the reference range and the disease is present  d Outside the reference range and the disease is present  d Elimination diets  a Basal  b Paraba	30	Mucus is normally often seen in urine.	С	Cat
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Basal				disease is absent
Basal			d	Outside the reference range and the
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A site of blood collection that is not frequently used, primarily because it is considered painful to the animal, is  In which group of animals would you normally expect to find nucleated RBCs?  a Facial vein  b Tail vein  c Jugular vein  d Toenail clip  a Goat  b Parrot  c Snake		in a orear:		
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In which group of animals would you normally expect to find nucleated RBCs?  a Goat b Parrot c Snake		primarily because it is considered painful to the animal, is		
In which group of animals would you normally expect to find nucleated RBCs?    Box Parrot   Compared to provide the compared to provide the compared to the co				*
find nucleated RBCs? c Snake				
find nucleated RBCs? c Snake	39		b	
d Parakeet				
· · · · · · · · · · · · · · · · · · ·			d	Parakeet

			Ι 4
	When you view a specimen under a compound microscope	a	4_
40	using the 40_ objective and a 10_ ocular, the total	b	40_
	magnification of the specimen being viewed is	С	400_
		d	4000_
		a	1000 to 3000/μL
41	The total white blood cell count of a healthy adult dog	b	30,000 to 50,000/μL
71	ranges from	c	4000 to 8000/μL
			6000 to 17,000/μL
	O 1 11 1 (CDC) 11 6 1 6 11 1	a	Neutrophilia
40	On a complete blood count (CBC), all of the following	b	Leukocytosis
42	findings could be expected in a patient with an infection,	С	Narrow buffy coat
	except,	d	A left shift
		a	Polycythemia
		b	Anemia
43	An elevated hematocrit is most commonly associated with	c	Dehydration
		d	Leukocytosis
			Proteins
		a	I.
44	Cholesterol and triglycerides are plasma	b	Lipids
		С	Enzymes
		d	Electrolytes
		a	Dogs
45	Heinz bodies may be a normal finding in up to 5% of the	b	Cats
43	erythrocytes in what species?	c	Horses
		d	Cows
		a	Amblyomma
4.5	****	b	Dermacentor
46	What tick is a soft tick?	С	Ixodes
		d	Otobius
		a	Live mites and/or eggs may be found
		u	in skin scrapings.
		b	It is cigar-shaped.
47	Which statement regarding <i>Demodex</i> is false?	c	It resides in the hair follicles and
7/	Which statement regarding Demoties is raise:	C	sebaceous glands of certain
			mammals.
		a	It is highly contagious.
		d	
		a	Tick
48	The parasite that is distinguished by white, operculated	b	Flea
	eggs that are cemented to the hairs of its host is the	С	Mite
		d	Louse
		a	Definitive
49	In what host do the sexually mature adult parasites live?	b	Intermediate
7/	In what host do the sexually mature addit parasites live:	c	Transport
		d	Secondary
		a	Fecal extractor
50	The instrument specifically designed to collect a fecal	b	Fecal spoon
50	sample directly from the animal's rectum is a	С	Fecal loop
	•	d	Fecal scoop
		a	Saline
	What is a proper lens cleaner to use for the care and	<u>u</u> b	Xylene
51	maintenance of a compound microscope?		Hydrogen peroxide
	mamonance of a compound interoscope:	c d	Sodium bicarbonate
		a	Sodium chloride
52	The fecal solution most likely to be successful in detecting	b c	Sodium nitrate
	Giardia cysts is		Zinc sulfate
		d	Physiologic saline

The ability of the renal tubules to concentrate or dilute a urine sample is assessed by what component of the urinalysis?  The most common uroliths found in feline and canine urine are urin	ediment
trine sample is assessed by what component of the urinalysis?  The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine are  Component of the component of the urinal sample is assessed by what component of the component of the urinalysis?  Specific gravity  a Struvite  Component of the component of the urinalysis?  A normal adult horse would most likely have a urinary ph  A normal adult horse would most likely have a urinary ph  Component of the second component of the urinalysis?	ediment
The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine b Calcium oxalate c Urate d Cystine  a 5.5  A normal adult horse would most likely have a urinary pH b 6.5	ediment
The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine are  Description:  a Struvite  b Calcium oxalate  c Urate  d Cystine  a 5.5  A normal adult horse would most likely have a urinary pH  b 6.5	
The most common uroliths found in feline and canine urine are  The most common uroliths found in feline and canine urine are  C Urate  d Cystine  a 5.5  A normal adult horse would most likely have a urinary pH  b 6.5	cament
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d Cystine a 5.5  A normal adult horse would most likely have a urinary pH b 6.5	
A normal adult horse would most likely have a urinary pH b 6.5	
A normal adult horse would most likely have a urinary pH b 6.5	
55	
of c 7.0	
d 7.5	
a Patient's diet	• .1 •
56 Urinary pH is not affected by the	
c Patient's acid—base's	
d Presence of crystals i	n the urine
a Horse	
57 What species has multiple forms of reticulocytes?  b Cow	
c Cat	
d Dog	
a Eosinophil	
Which white blood cell is known as "the first line of b Lymphocyte	
defense" after a microorganism has entered the body?  c Monocyte	
d Neutrophil	
a Measures leukocytes	in the milk of
each quarter	
b Measures trypsin-like	e factor in the
59 A California mastitis test milk of each quarter	
c Measures bacterial ce	ells in the whole
milk of the udder	
d Measures cellular nu	
the whole milk of the	udder
a 5 minutes	
The red-top Vacutainer tube should sit at room temperature b 30 minutes	
for before centrifugation, allowing the clot to form c   1 hour	
d 0 minutes (No clot w	rill form.)
a Wet prep	
When preparing cytology samples for microscopic b Squash prep	
evaluation, what is the best technique to use?  c Modifi ed Knott prep	)
d Willis prep	
a Metestrus	
The period of time when a bitch is receptive to the male is b Proestrus	
classified as c Anestrus	
d Estrus	
a Bovine	
In what species are the platelets normally larger than the red b Canine	
blood cells?	
d Feline	
a Red top	
64 What Vacutainer tube yields plasma via centrifugation?  b Red/black mottled to	
what vacutamer tube yields plasma via centrifugation?  c Green/gray mottled to	op
d Yellow top	
a Demodex	
65 Which of these ectoparasites is zoonotic?  b Cnemidocoptes	
65 Which of these ectoparasites is zoonotic?  C Sarcoptes	
d Otodectes	

What parasite uses snails as intermediate hosts?   b Paragonisms   c Taenia   d Dipetatonema   a Toxophasma				T
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Comparison   Com	66			
Which of the following parasites is not zoonotic?   b   Echinococcus   c   Dipylidlum   d   Gardia   a   Files   b   Mites   c   Ticks   d   Lice   d				
Which of the following parasites is not zoonotic?   C   Dipylidium				
Which of the following parasities is not zoonotic?		[		
A	67	Which of the following parasites is not zoonotic?	b	
Myiasis is an infestation of b Myiasis is an infestation of c Ticks  A a Iodine  D Calcium  Myagesium  A Iron  A Oxalate  D Silica  C Urate  C Urate  C Urate  D IgG  Myiasis is an infestation of c Magnesium  A Iron  A Substance that has been lyophilized has been  Myiasis is an infestation of c Ticks  A Urate  D Myagesium  A Iron  A Iron  A Iron  A IgG  A I	07	and of the following parasites is not zoonotic;		1 1
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Trematodes are    Trematodes are		†		
Trematodes are    C   Roundworms		<u>                                     </u>		
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indicates    C   She is in proestrus.		If a milk progesterone test from a convic positive it		ı Ü
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78 Basophils are most commonly found in what tissues?  Basophils are most commonly found in what tissues?  Basophils are most commonly found in what tissues?  C Avascular tissues  d Bone marrow  a Urolith  b Cystolith  c Renal calculus	77	A substance that has been Ivophilized has been		
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79 The correct medical term for a urinary bladder stone is    C	78			
79 The correct medical term for a urinary bladder stone is  a Urolith b Cystolith c Renal calculus	, 0	tissues?		
79 The correct medical term for a urinary bladder stone is  b Cystolith c Renal calculus			d	
79 The correct medical term for a urmary bladder stone is  c Renal calculus				
79 The correct medical term for a urmary bladder stone is  c Renal calculus	70	The correct medical term for a pringry bladder stone in	b	
d Cyctic calculus	17	The correct medicar term for a urmary brauder stone is		Renal calculus
u Cystic calculus			d	Cystic calculus

		a	Spleen
80 Wha	at organ has both lymphatic and hematologic functions?	b	Pancreas
OO VIIIC	vinat organ has both lymphatic and hematologic functions?	c	Tonsil
		d	Liver
		a	Thyroid
01 33/1		b	Thymus
81 Wha	at organ releases T cells?	С	Splenic trabeculae
		d	Tonsils
		a	Collection tubes can be used
			sequentially.
		b	Withdrawal pressure is not easily
1 X/	at is the disadvantage of using vacuum blood collection		controlled.
tube	es'?	С	Rapid sample collection
		d	Blood enters the tube and mixes
		u u	rapidly
		a	Lipemia
Cent	trifuging a blood sample at high speed for a prolonged	b	Icterus
	od may result in	c	Hemolysis
perio	od may result m	d	Bacterial contamination
+			Liver
D1		<u>a</u>	
	od levels of cholesterol, triglycerides, and total protein	b	Pancreas
are a	all used to evaluate function of the	C	Adrenal glands
		d	Kidneys
	What needle would you give the veterinarian to use for a fine-needle aspirate?	a	14 gauge
		b	16 gauge
fine-		c	20 gauge
		d	22 gauge
	Tester 127 to a consent of the	a	Bacterial infection
96 Fosi		b	Parasitic infection
86 Eosi	inophilia is commonly seen with a	С	Viral infection
		d	Hormonal disorder
		a	Horses
07 111		b	Cats
87 Wha	at species normally has the smallest erythrocytes?	С	Cattle
		d	Goats
		a	Babesia
		b	Ehrlichia
88 Wha	at is an intracellular parasite of erythrocytes?	c	Trypanosoma
		d	Toxoplasma
		a	IgG
Whi	ch immunoglobulin is the only one that can cross the	b	IgM
	enta?	c	IgA
Piac	unu.	d	IgD
			Hair
Th.	first line of defense that the body has against foreign	<u>a</u> b	Neutrophils
90			Primary lymphoid tissue
IIIva	invaders is the	d d	Skin
	ELISA is an acronym for	a	Electro-linked immunosorbent assay
91 ELIS		b	Enzyme-linked immunosorbent assay
		c	Enzyme-linked immunoassay
		d	Electrolytic isoantibody assay
		a	Subcutaneously
9/	Vaccines may be given by any of the following routes, except	b	Intramuscularly
l - evce		С	Intranasally
CACC		d	Intraperitoneally

			1
		a	Blue
93	Gram-negative organisms appear as what color when	b	Red
)3	stained with Gram stain?	c	Green
		d	Clear
		a	Autoclaving
		b	Incineration
94	Which of the following does not kill endospores?	c	Hot-air sterilization
		d	Pasteurization
		a	Dry heat
	What made d is best and to stariling best andical	b	
95	What method is best used to sterilize heatsensitive medical		Autoclaving
	equipment?	c	Gas sterilization
		d	Pasteurization
		a	Viruses
96	Generally, endotoxins are products of	b	Gram-negative bacteria
90	Generally, endotoxins are products of	c	Gram-positive bacteria
		d	Fungi
		a	Staphylococcus aureus
		b	Streptococcus equi
97	What organism causes strangles in horses?	c	Corynebacterium equi
		d	Strongylus vulgaris
		a	Dog
	-		
98	Calcium carbonate crystals are often seen in urine.	b	Horse
	,	c	Cat
		d	Cattle
	On the average, an adult horse consumes approximately how many gallons of water per day?	a	10 to 15
99		b	5 to 7
77		c	25
		d	1
		a	Pelleted foods
100		b	Human foods
100	Birds are attracted to	С	Brightly colored feed
		d	Foods high in salt
		a	Intravenous supplementation
		b	Feeding at timed intervals
101	Enteral feeding is		Feeding orphans
		С	• .
		d	Feeding via the gastrointestinal tract
		a	Hogs and sheep
102	Which of the following animals can easily become	b	Goats and sheep
102	hyperthermic if chased?	c	Goats and hogs
		d	Cattle and goats
		a	Lift up the head and chin
102	What is the heat method to one sure a seet to start 1 (110)	b	Cover an eye
103	What is the best method to encourage a goat to stand still?	С	Hold up a front leg
		d	Tie to a fence
		a	61 days
	At what age is a kitten fully able to control its body	b	45 days
104	temperature?	c	28 days
	temperature?	d	12 days
-			•
		a	Low protein and fat levels
105	Cow's milk should not be given to puppies or kittens as a	b	High fat and protein levels
	milk replacer because of its	c	Low fat and higher protein levels
		d	High fat and lower protein levels
		a	102°F
100	What is the normal body temperature of a kitten during the first 2 weeks of its life?	b	100°F
106		С	95°F
		d	104°F
L			· -

		a	Panleukopenia
107	Parvovirus causes what disease in cats?	b	Rhinotracheitis
107	Tarvovirus causes what disease in cats.	c	Infectious peritonitis
		d	Infectious anemia
		a	Around the tail base
100		b	Around the horn base
108	Scent glands in the male goat are located	С	In the groin area
		d	In the axial area
		a	Cat wants to vomit
		b	Cat has worms
109	If a cat is eating grass, then you know that the	c	Cat has a nutritional defi ciency
		d	Cause is unknown
	In an isolation unit where sick animals are housed, the air	a	Higher
110	pressure in the unit compared with that in the quarters	b	Lower
	housing healthy animals must be	c	Equal
	nousing neurony animals must be	d	Much higher
		a	Stress
111	"Pad tages" (ahramadaaryarrhaa) in rate is assessed by	b	Infection
111	"Red tears" (chromodacryorrhea) in rats is caused by	С	Toxins
		d	Impaired blood clotting
		a	Pneumonia
	The most common health problem encountered in cattle that	b	Diarrhea
112	have been recently shipped is	c	Lameness
	have been recently shipped is	d	Pinkeye
		a	Add more moisture to forage materials
	Cattle add large quantities of saliva to their feed during chewing and also regurgitate during rumination. The most important effect of this is to	1.	
113		b	Buffer the acids produced in the
			rumen
		С	Aid chewing and swallowing
		d	Keep the tongue moist
		a	A beef breed calf
114	What is a freemartin?	b	A heifer calf born twinned to a bull
114	What is a mechanin:	c	A calf with extra teats
		d	A premature calf with birth defects
		a	Hairball
		b	Laceration
115	What is a trichobezoar?	С	Abscess on the body surface
		d	Any ingested metal foreign body
		u u	I my mgestee metal rereign easy
		a	Tilt the head up slightly and roll the
		u	lips over the canine teeth to open the
			mouth.
		b	Leave the head in a horizontal
		υ	
	For and administration of limits and Proston to a second		position and administer the liquid
116	For oral administration of liquid medication to a dog or cat,		between the lips and cheek.
	you should	c	Tilt the head straight up and open the
			mouth, using the index fi nger of
			your other hand.
		d	Tilt the head straight up, administer
			the liquid between the lips, and stroke
<u></u>			the throat.
		a	Looks from side to side
		b	Holds its head low between the
		-	shoulders
117	To judge whether a dog is being aggressive, observe its	С	Wags its tail
	body language. An aggressive dog	d	Has eyes that dart from one thing to
		u	another
			1

To judge whether a dog is nervous observe its body language. A nervous dog usually   b   Stures straight at you   c   Remains in a "sit" position   d   Has eyes that dart from one thing to another   d   Has eyes that dart from one thing to another   d   Ellylene glycol   d   Ellylene				Holds its head low between the
To judge whether a dog is nervous, observe its body language. A nervous dog usually    119			a	
119   Common department of the common depart		To independent of the body	h	
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Nomiting should not be induced in patients that have ingested   Image: Proper site for intraperitoneal injection is   Image: Proper site for intraperitoneal injection in intravenous catheters is   Image: Proper site for intraperitoneal injection in intravenous catheters is   Image: Proper site for intraperitoneal injection in saline or sterile water for intraperitoneal injection in form a flush solution for preventing blood clots in intravenous catheters is   Image: Proper site site obstitution of the intraperitor in the injection to form a flush solution for preventing blood clots in intravenous catheters is   Image: Proper site site obstitution   Image: Proper site site obstitu		language. A nervous dog usuany		
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When monitoring patients on fluids and/or patients that undergo diuresis, urine output is an important consideration. The normal urine production for a healthy dog or cat is approximately   d   25 to 30 ml/kg/hr   d   25	117	ingested	c	Kerosene
120 undergo diuresis, urine output is an important consideration. The normal urine production for a healthy dog or cat is approximately dog or cat is approximately  121 Gastric dilatation/volvulus (GDV) is a life-threatening emergency. Its main damaging effect is the obstruction of the Dorat vein Splenic vein do Portal vein Splenic vein do Splenic vein do Portal vein caudal to the ribe cage do Portal vein Splenic vein do Portal vein de Portal vein do Portal vein do Portal vein de Portal vein do Portal			d	Ethylene glycol
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Puppies born via cesarean section that are not breathing well may benefit fromdrops administered sublingually.  The type of drug that would be most helpful for a patient with a productive cough is  The anticoagulant diluted in saline or sterile water for injection to form a flush solution for preventing blood clots in intravenous catheters is  Common drugs of plant origin, such as digoxin and atropine, are ineffective in a cow when administered orally because of  a Dobutamine  b Digitalis  c Doxapram  d Antitussive  b Antihistamine  c Expectorant  d Analgesic  a Heparin  b EDTA  c Coumarin  d Acid citrate dextrose (ACD  a Eructation  b The large size of the rumen  c Methane gas  d Digestive microorganisms  a Dog  b Cat  c Horse		_ 		<u> </u>
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The type of drug that would be most helpful for a patient with a productive cough is  The anticoagulant diluted in saline or sterile water for injection to form a flush solution for preventing blood clots in intravenous catheters is  Common drugs of plant origin, such as digoxin and atropine, are ineffective in a cow when administered orally because of  The species that generally clears NSAIDs most slowly is  a Antitussive  Antihistamine  c Expectorant  d Analgesic  a Heparin  b EDTA  c Coumarin  d Acid citrate dextrose (ACD  a Eructation  b The large size of the rumen  c Methane gas  d Digestive microorganisms  a Dog  b Cat  c Horse	120	well may benefi t from drops administered sublingually.		
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128 injection to form a flush solution for preventing blood clots in intravenous catheters is  Common drugs of plant origin, such as digoxin and atropine, are ineffective in a cow when administered orally because of  Common drugs of plant origin, such as digoxin and atropine, are ineffective in a cow when administered orally because of  The species that generally clears NSAIDs most slowly is  b EDTA  Coumarin  d Acid citrate dextrose (ACD  a Eructation  b The large size of the rumen  c Methane gas  d Digestive microorganisms  a Dog  b Cat  c Horse				
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Common drugs of plant origin, such as digoxin and atropine, are ineffective in a cow when administered orally because of  The large size of the rumen  C Methane gas  d Digestive microorganisms  a Dog  b Cat  The species that generally clears NSAIDs most slowly is  The species that generally clears NSAIDs most slowly is				
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because of  c Methane gas d Digestive microorganisms a Dog b Cat C Horse	129	atropine, are ineffective in a cow when administered orally		
130 The species that generally clears NSAIDs most slowly is  The species that generally clears NSAIDs most slowly is  Digestive microorganisms  a Dog  b Cat  c Horse	12,			
The species that generally clears NSAIDs most slowly is  b Cat c Horse			d	
130 The species that generally clears NSAIDs most slowly is  c Horse				
c Horse	120	The species that generally clears NSAIDs most slowly is	b	Cat
	130		c	Horse
				Ruminant

			DI di
		a	Phenothiazines
131	The most widely used type of antiemetic drugs used to	b	Antihistamines
	prevent motion sickness in dogs and cats are the	С	Anticholinergics
		d	Antispasmodics
		a	Kaopectate
132	A coating agent that forms an ulcer-adherent complex at the	b	Sucralfate
132	ulcer site is	С	Cimetidine
		d	Misoprostol
		a	The plasma concentration at which
			therapeutic benefi ts should be
			observed
		b	The relationship of a drug's ability to
133	The therapeutic range of a drug refers to which of the		achieve a desired effect versus
133	following?		causing a toxic effect
		С	The range of curative properties that
			a drug may exhibit
		d	The frequency of idiosyncratic
			reactions
		a	Genetically derived materials that
			enhance immune function
		b	Drugs that are derived from humans
134	Nutraceuticals is a category of drugs with which of the		for use in animal
134	following characteristics?	С	Drugs that are undergoing clinical
			trials before FDA approval
		d	Nontoxic food components that have
			proven health benefits
	In dogs that have been receiving long-term glucocorticoid therapy (months to years), a sudden discontinuation of the drug may result in which of the following medical problems?	a	Immunosuppression
125		b	Iatrogenic addisonian crisis
135		С	Polyuria and polydipsia
		d	Iatrogenic thyroid disease
	XXIII of the Calle in the initial in the initial initi	a	Furosemide
126	Which of the following drugs is classified as an osmotic	b	Propranolol
136	diuretic and is often used to reduce intracranial pressure or	С	Mannitol
	treat oliguric renal failure?	d	Bethanechol
		a	Effectiveness
107	The number of species of bacteria that are affected by an	b	Effi cacy
137	antibiotic is known as the antibiotic's	c	Spectrum
		d	Sphere
		a	Third-generation drugs are better
			absorbed when given orally
	Ceftiofur is classified on the package insert as a third-	b	Third-generation drugs have better
	generation cephalosporin antibiotic; cefadroxil is classified		gram negative activity
138	as a first-generation cephalosporin. How do third-	С	Third-generation drugs last longer in
	generation cephalosporins differ from first-generation		the body; they are given once daily
	cephalosporins?		only
		d	Third-generation drugs have fewer
			side effects and adverse reactions.
		a	Prostate gland
120	What organ blocks entrance of many drugs because of a	b	Thyroid gland
139	barrier similar to the blood-brain barrier?	c	Pancreas
		d	Spleen
		a	Amoxicillin
	What drug readily penetrates the bloodbrain barrier and	b	Enrofl oxacin
140	achieves therapeutic concentrations of antibiotic in the	c	Oxytetracycline
	central nervous system?		Chloramphenicol
L			Cinoramphenicor

		a	It can bind with dietary calcium
			(milk) and become deactivated.
		b	The liver is unable to metabolize
	Why is ablorouphonical used with extreme coution in cots		chloramphenicol effectively in these
141	Why is chloramphenicol used with extreme caution in cats and neonates?		animals.
	and neonates?	c	It can alter developing bone, enamel,
			and cartilage.
		d	It may drastically alter gut bacterial
			flora, resulting in fatal diarrhea.
		a	1
142	How many millilitans are in a tagangan?	b	3
142	How many milliliters are in a teaspoon?	c	5
		d	10
	Chronic administration of high doses of glucocorticoids can cause iatrogenic	a	Renal failure
143		b	Addisons disease
143		С	Cushings disease
		d	Johnes disease
	William and the state of the st	a	Estrogen
144	What reproductive hormone can produce pyometra in dogs?	b	Progesterone
144	It is also used in the pregnant mare in an attempt to keep it	С	Gonadotropin
	from prematurely aborting its fetus.	d	Prostaglandin
		a	Phenylbutazone
1.45	Which NSAID, when given perivascularly in horses, can	b	Etodolac
145	cause skin necrosis and sloughing?	С	Ketoprofen
		d	Meclofenamic acid
		a	Fenoxycarb
146		b	Amitraz
146	What insecticide is effective in treating demodectic mange?	С	Pyrethrin
		d	Allethrin

**Key Miscellaneous Section B:** 

No.	Answer	No.	Answer	No.	Answer
1	С	51	В	101	D
2	A	52	С	102	A
3	В	53	С	103	С
4	В	54	A	104	С
5	В	55	D	105	A
6	D	56	D	106	С
7	В	57	С	107	A
8	D	58	D	108	В
9	D	59	A	109	D
10	A	60	В	110	В
11	В	61	В	111	A
12	A	62	D	112	A
13	D	63	D	113	В
14	D	64	С	114	В
15	A	65	С	115	A
16	С	66	В	116	В
17	D	67	С	117	В
18	В	68	A	118	D
19	В	69	D	119	С
20	С	70	A	120	В
21	С	71	С	121	В
22	A	72	В	122	С
23	С	73	В	123	С
24	С	74	D	124	В
25	С	75	D	125	A
26	С	76	D	126	С
27	A	77	A	127	С
28	D	78	В	128	A
29	С	79	A	129	D
30	В	80	A	130	В
31	D	81	В	131	A
32	В	82	В	132	В
33	A	83	С	133	A
34	С	84	A	134	D
35	С	85	D	135	В
36	D	86	В	136	С
37	D	87	D	137	С
38	D	88	A	138	В
39	В	89	A	139	A
40	С	90	D	140	D
41	D	91	В	141	В
42	С	92	D	142	С
43	С	93	В	143	С
44	В	94	D	144	В
45	В	95	С	145	A
46	D	96	В	146	В
47	D	97	В		
48	D	98	В		
				l	1
49	A	99	A		

## **Miscellaneous Section C:**

	llaneous Section C:	Choice	Answore
S.No	Question	Choice	A netural position
	If you are armined feeding a matient the most armined	a	A natural position
1	If you are syringe-feeding a patient, the most appropriate	b	Flexed upward 90 degrees
	positioning of the head would be	С	Turned 90 degrees to one side
		d	Hanging over the edge of the table
		a	102 ° F
2	Which of the following values is a normal rectal	b	98 ° F
	temperature for a dog?	С	106 ° F
		d	. 95 ° F
		a	Room temperature and hypertonic
3	Fluids administered via the subcutaneous route should be at	b	Body temperature and isotonic
J	Training administrator via the substanteous route should be at	С	Body temperature and hypotonic
		d	Room temperature and hypotonic
		a	70 days
4	What is the average length of gestation for a dog?	b	63 days
4	what is the average length of gestation for a dog:	С	59 days
		d	55 days
		a	Staggering
5	Milk fever may have all of the following clinical signs	b	Ascending paralysis
5	except	С	Neck kink
		d	Hypersalivation
		a	A finite antigen mass at injection
		b	Provides cellular and mucosal
6	Which of the following is not true of inactivated vaccines?		immunity
	which of the following is not true of macritation vaccines.	С	Requires adjuvant
		d	Relatively stable and safe
	A client calls to say that her horse is sweated up, keeps looking at his belly, and is trying to roll; the veterinarian will most likely find that the horse is suffering from	a	Tetanus
		b	Colic
7		c	Strangles
		d	Epistaxis
		a	Rabies
		b	Chlamydia infection
8	Which of the following diseases of sheep is not zoonotic?		Toxoplasmosis
		С	Johne's
		d	
		a	Dogs
9	Blood transfusion reactions that result from incompatibility	b	Cats
	are rarest in	С	Horses
		d	Cows
		a	Glucose
10	Which of these can be positive in the urine of a normal,	b	Ketones
	healthy dog?	С	Bilirubin
		d	Alanine aminotransferase (ALT)
		a	Deep lacerations
		b	Contaminated wounds that need to
11	A wet-to-dry bandage is best for what type of wounds?		be debrided
11	11 wet to dry bandage is best for what type of wounds:	С	Abscesses
		d	Healing wounds with good
			granulation tissue
		a	Sodium chloride
10	Which of these compounds is not found in lactated Ringer	b	Potassium chloride
12	solution?	С	Magnesium chloride
		d	Calcium chloride
		a	Velpau
		b	Ehmer
13	What sling is used to stabilize the coxofemoral joint?	С	Arm
	what sing is used to stabilize the confermoral joint.		
		d	Robert Jones

			No. Section 2
		a	Moisture
14	Which of the following would delay wound healing?	b	Dessication
		С	Antibiotics
		d	Drains
		a	Husky
15	Which of these dog breeds is sensitive to ivermectin?	b	German shepherd
13	which of these dog breeds is sensitive to iverneedin:	c	Pug
		d	Collie
		a	Macule
		b	Vesicle
16	Which of the following is not a primary skin lesion?	С	Excoriation
		d	Wheal
		a	The eyes being off center
		b	The eyes moving in a horizontal or
17	The terms west accurate referre to	U	vertical motion
1 /	The term <i>nystagmus</i> refers to		I .
		C	Abnormal protrusion of the eye
		d	Marked edema of the eyes
		a	Silver nitrate sticks
18	Bleeding from a nail during a nail trim is frequently stopped	b	Baking powder
10	by using	c	K-Y Jelly
		d	Ice packs
		a	Colostrum
10	Ninety-five percent of the circulating antibodies in puppies	b	Placenta
19	younger than 48 hours old come from the	С	Puppies' bone marrow
		d	Environment
	Besides skin tenting, one of the best physical signs to access fluid status is	a	Heart rate
		b	Respiration
20		c	Pulse
	access finite status is	d	Weight
			Alcohol
	Before doing a skin scraping for a fungal culture, apply	a	
21		b	Peroxide
		c	Tincture of iodine
		d	Potassium hydroxide
		a	Safety of the animal
22	The fi rst concern when dealing with any animal should be	b	Safety of the handlers
22	the	c	Protection of the equipment
		d	Time the procedure will take
		a	Rear
		b	Directly in the front
23	From what area is it best to approach a horse?	С	At a 45-degree angle from the left
	11	-	shoulder
		d	Any direction is okay
		a	IV
		<u>a</u> b	Anteroposterior
24	Which is not a route of injection?	c	IM
			Subcutaneous
		d	
		a	On its side
		b	Sitting on its rump
25	An animal in sternal recumbency is	c	Positioned with its back on the table
			or floor
		d	Positioned with its abdomen on the
			table or floor
		a	Draw air into the syringe
		b	See whether the needle has been
26	When giving an IM injection, it is good practice to		inserted into a blood vessel
26	withdraw the syringe plunger after the needle is inserted to	С	Make the plunger easier to depress
		d	Provide stability to the syringe
		-	state state and symmetry
	<u> </u>		

1		•	Ventual to the mandible
		a	Ventral to the mandible
27	Where are the anal sacs located?	b	Cranial to the scapula
	_	c	In the inguinal area
		d	In the perianal area
	When using a mercury thermometer to measure rectal	a	10 seconds
28	temperature, what is the minimum time the thermometer	b	60 seconds
	should be left in the rectum	c	2 minutes
	should be left in the rectain	d	5 minutes
		a	Relaxant
29	Another term for a laxative is	b	Diuretic
2)	Another term for a faxative is	c	Adjuvant
		d	Cathartic
		a	Debridement
20	What phase of healing begins immediately after tissue	b	Repair
30	injury?	С	Inflammation
		d	Maturation
		a	Pug
		b	Basenji
31	The breed of dog that is considered naturally barkless is the	c	Pomeranian
		d	Lhasa apso
		a	Guernsey
		b	Holstein
32	Which breed of cattle is a beef breed?		
	-	С	Jersey
+		d	Angus
	What area of the bovine body does hardware disease affect?	a	Foot
33		b	Abomasum
		c	Reticulum
		d	Intestine
	What disease of cattle cannot be prevented by vaccination?	a	Blackleg
34		b	Botulism
34		c	Malignant edema
		d	Brucellosis
		a	Staphylococcus aureus
35	Infertility and abortion in cattle can be caused by	b	Foot and mouth disease
33	infermity and abortion in cattle can be caused by	c	Campylobacter fetus
		d	Coronavirus diarrhea of calves
	Will 64 64 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	a	Flea
26	Which of the following is considered a potential vector for	b	Mite
36	Lyme disease (borreliosis), which can cause severe human	С	Tick
	illness?	d	Louse
		a	Quality of the x-ray beam
		b	Quantity of x-ray beams
37	The kVp setting on an x-ray machine controls the	c	Number of electrons emitted
		d	Focal spot size
			Quality of the beam
	The milliampere seconds (mAs) setting on an array	<u>a</u> b	Quantity of the beam  Quantity of x-rays emitted
38	The milliampere-seconds (mAs) setting on an x-ray machine controls the		
	machine controls the	С	Speed of electrons emitted
		d	Wavelength of the beam
		a	Fixer
39	The remaining silver halide crystals from exposed x-ray fi	b	Developer
	lm are removed in the	c	Wash water
		d	Storage envelope
			,
		a	Black mark
40	A bullet fragment on a film appears as a		Black mark Diffuse greenish gray area
40	A bullet fragment on a fi lm appears as a	a	

		a	68°F
41	The ideal temperature of the chemicals for manual	b	75°F
	radiograph processing is	c	39°C
		d	25°C
		a	White
40	An x-ray fi lm accidentally developed before exposure to	b	Black
42	radiation appears	С	Green
		d	Clear
		a	Ultrasound
	The imaging technique that involves a piezoelectric crystal	b	Tomography
43	within a transducer is		Magnetic resonance
	within a transducer is	d d	Scintigraph
			~ i
		a	Scintigraphy
44	The imaging technique that uses x-rays and computers to	b	CT
	produce images that show anatomy in a cross section is	С	MRI
		d	Fluoroscopy
		a	Provide greater analgesia and
			muscle relaxation than either drug
			can alone
45	The combination of xylazine and butorphanol is used to	b	Cause central nervous system
			(CNS) excitement
		С	Increase the dose of butorphanol
		d	Increase the dose of xylazine
		a	Dogs
	Detomidine is approved for use in	b	Cats
46		c	Horses
		d	Cattle
	A 10% solution of thiopental sodium for anesthetic induction contains	a	10 mg/ml
47		b	100 mg/ml
		c	20 mg/ml
		d	40 mg/ml
		a	Butorphanol
48	Which drug is an antagonist of xylazine?	b	Detomidine
	Which drug is an anagomet of Aylazine.	c	Yohimbine
		d	Pentazocine
		a	Analgesia
40	D'a annual and an annual and	b	Hypnosis
49	Diazepam is used to produce	С	Muscle relaxation
		d	Vomiting
		a	Thiopental sodium
		b	Ketamine
50	Which drug is a dissociative anesthetic?	c	Xylazine
		d	Acepromazine
<u> </u>			Respiratory rate
		a h	
		b	Cardiac output
51	Pulse oximetry monitoring devices give an estimate of	С	Percentage of hemoglobin
			saturation with oxygen in arterial
			blood
		d	Oxygen content of arterial blood
52		a	Pinna refl ex
	Using ketamine as an anesthetic agent diminishes the value	b	Pedal refl ex
] 32	of what measure in assessing anesthetic depth?	c	Jaw muscle tone
		d	Eye position
		a	Stage I
		b	Stage II
53	What stage of anesthesia may be characterized by vocalization, struggling, and breath holding?	c	Stage III, plane 1
		d	Stage III, plane 2
		u	Stage III, plane 2

			1 1
			25 ml/kg
54	The estimated blood volume in dogs is	b	50 ml/kg
34	The estimated blood volume in dogs is	c	75 ml/kg
		d	100 ml/kg
		a	1 mg
	A 1:10,000 dilution of epinephrine contains how much	b	0.01 mg
55	epinephrine per milliliter?	С	1 mg
		d	0.1 mg
		a	Tachycardia
	If a dog is too doonly anosthotized all of the following may	b	Bradycardia
56	If a dog is too deeply anesthetized, all of the following may		Pale mucous membranes
	be seen except	c d	
			Increased jaw muscle tone
		a	The electrocardiogram (ECG) is
			normal.
57	During CPR, adequate cardiac massage is present when	b	The heart rate is 60 beats/min.
		c	A peripheral pulse can be palpated.
		d	The mucous membranes are pink.
		a	A seriously morbid state
		b	Nothing to worry about
58	Dehydration greater than 10% is	С	Not something that affects skin
	, , , , , , , , , , , , , , , , , , ,		turgor
		d	Not associated with depression
		a	Acepromazine
			Atropine
59	is an analgesic and a sedative.	b	
		С	Diazepam
		d	Xylazine
	Phenothiazine tranquilizers	a	Cause nausea
		b	Increase the seizure threshold
60		c	Cause vasoconstriction
		d	Suppress the sympathetic nervous
			system
		a	Respiratory stimulant
		b	Fluid therapy
61	An overdose of a barbiturate anesthetic can be appropriately	С	Ventilator support
	treated with all of the following except	d	An increase in the concentration of
		u u	isoflurane
		a	BUN
	Kidney function can be assessed by the following	b	ALT
62	preanesthetic screening tests except		
	preanesment screening tests except	С	Urinalysis
<u> </u>		d	Creatinine
		a	PCV
63	The oxygen-carrying capacity of the blood can be assessed	b	Hematocrit
	by measuring all of the following except	c	Total solids
		d	Hemoglobin
		a	Respiratory rate
CA	A patient's hydration status can be assessed by all the	b	PCV
64	following except	С	Total solids
		d	Skin turgor
		a	Cause increased release of
		и	inhibitory neurotransmitters
			Interfere with transmission of the
65	Local anasthatics	b	impulse along the nerve fiber
0.5	Local anesthetics		
		С	Disrupt nerve impulse transmission
			at the NMJ
		d	Block catecholamine release

_	T		I a
		a	Somatic
66	pain originates from internal organs.	b	Preemptive
00	pain originates from internal organis.	c	Visceral
		d	Referred
		a	Prolongs anesthetic induction
	l	b	Prolongs anesthetic recovery
67	Hypothermia	c	Is common in obese patients
		d	Is of no concern in neonatal patients
			Ketamine
	+	a b	
68	Which of these is a cyclohexamine agent?		Acetylpromazine
		c	Xylazine
		d	Propofol
		a	Thiopental
69	The common drug used for epidural anesthesia is	b	Ketamine
09	The common drug used for epidural allestnessa is	c	Propofol
		d	Lidocaine
		a	Yohimbine
		b	Dopram
70	What drug is an antagonist of medetomidine (Domitor)?	c	Atipamezole
		d	Naloxone
			Aspirin and xylazine
	NT	a b	
71	Nonsteroidal antiinfl ammatory drugs used to control mild		Diazepam and acetaminophen
	postoperative pain include	c	Carprofen and ketoprofen
		d	Acetylpromazine and ibuprofen
		a	Lidocaine
72	The local anesthetic agent that has the longest duration of	b	Mepivacaine
12	action is	С	Tetracaine
		d	Bupivacaine
		a	Acepromazine
	An alpha-2 agonist that provides sedation, muscle	b	Xylazine
73	relaxation, and analgesia is	c	Diazepam
	Totakution, and unargosia is	d	Ketamine
			Blue
	-	a	
74	Medical oxygen cylinders are colored	b	Gray
		c	Green
		d	Orange
		a	Diazepam
75	Which of the following is not an opioid drug?	b	Fentanyl
13	which of the following is not an opioid drug:	c	Meperidine
		d	Butorphanol
		a	Lower dose rate used
	Which of the following is not seen when ketamine is	b	Quicker onset of effects
76	administered IV rather than IM?	c	Longer duration of effects
		d	Less pain on injection
			An excitement phase
	Which of the following is least likely to be a men to de	<u>a</u> b	Pain
77	Which of the following is least likely to be a result of		
	administering barbiturates perivascularly?	C	Tissue sloughing
		d	Transient apnea
		a	Oscillometer
78	Which of the following cannot be used to detect blood	b	Doppler
/ 0	pressure?		Sphygmomanometer
		d	Pulse oximeter
		a	Diazepam
	Which of the following drugs is useful in the treatment of prolonged anesthetic recoveries?		Doxapram
79			Dopamine
	F	d d	Digoxin
L		u	DISONIII

	T		
		a	At the medial canthi on the bridge
			of the nose
0.0	For a Dorsoventral (DV) view of the entire skull, you	b	Between the ears
80	should center the primary beam	c	At the highest point of the
	The second secon		zygomatic arch
		d	Between lateral canthi on sagittal
			crest
		a	Dorsopalmar
81	The best view of the elbow is	b	Palmarodorsal
01	The best view of the croow is	c	Caudocranial
		d	Craniocaudal
		a	Greyhound
02	A = 11 - 11 1 - C 1 4 - 1 - 1 - 4 11 1 1	b	Basset hound
82	An ideal breed of dog to be kept as a blood donor is the	С	Dachshund
		d	Chihuahua
		a	5 to 7 days
	In general, how many days should be allowed for diet	b	1 to 3 days
83	changes in dogs and cats?	c	48 to 72 hours
		d	28 days
		a	10 to 15
	On the average, an adult horse consumes approximately	b	5 to 7
84	how many gallons of water per day?	c	25
	now many ganons of water per day?	d	1
			Pelleted foods
	Birds are attracted to	a	
85		b	Human foods
		c	Brightly colored feed
		d	Foods high in salt
	Potassium is critical for	a	Muscle function
86		b	Weight gain
00		c	Palatability
		d	Digestion
		a	Certain medications
87	Appetite may be stimulated by all of the following, except	b	Warming the food
07	Appetite may be stimulated by an of the following, except	c	Sense of smell
		d	Refrigerating the food
		a	Lift up the head and chin
00	XXII	b	Cover an eye
88	What is the best method to encourage a goat to stand still?	С	Hold up a front leg
		d	Tie to a fence
		a	Cats
		b	Dogs
89	What species has the highest protein requirement?	c	Rabbits
		d	Sheep
		a	Low protein and fat levels
	Cow's milk should not be given to puppies or kittens as a	b	High fat and protein levels
90	milk replacer because of its	c	Low fat and higher protein levels
	min replacer occause of its	d	High fat and lower protein levels
			Alfalfa hay
		a	
91	Rabbits should have an unlimited amount of	b	Alfalfa pellets
		c	Grass hay
		d	Fresh fruits and vegetables
		a	Panleukopenia
92	Parvovirus causes what disease in cats?	b	Rhinotracheitis
94	Tarrormas eauses what disouse in eaus:	c	Infectious peritonitis
		d	Infectious anemia

	T		Loon hody resear
	A dog has a history of not eating for 2 days and has lost	a	. Lean body mass
93	10% of its body weight. This weight loss is most likely due	b	Fat
	to a loss of	c	Glycogen
	to a 1055 01	d	Water
		a	Around the tail base
0.4		b	Around the horn base
94	Scent glands in the male goat are located	С	In the groin area
		d	In the axial area
		a	Corn oil
		b	Peanut butter
95	Cholesterol would be found in the highest concentration in	c	Turkey breast without the skin
	-	d	
			Celery
	-	a	Deficiency of iodine
96	Goiter can be caused by	b	Deficiency of iron
	,	С	Deficiency of vitamin C
		d	Deficiency of essential fatty acids
		a	Rabies
97	Puncture wounds in horses and other species pose a	b	Colibacillosis
91	particular risk for the development of	c	Tetanus
		d	Strangles
		a	Building materials
			Fencing
98	Frequently, the most challenging aspect of housing goats is	b c	Heating
		d	Size considerations
		a	Sugars
		b	Amino acids
99	What nutrient is not an energy-producing nutrient?	c	Minerals
		d	Fatty acids
	Process in which foreign DNA is introduced into another cell with the help of a viral vector	a	Conjugation
100		b	Transformation
100		С	Both a & b
		d	Transduction
		a	10-15 hr after end of oestrus
		b	12-24 hr before end of oestrus
101	Time of ovulation in Cattle is	С	1-2 days before end of oestrus
		d	1-2 days after the onset of true
			oestrus
		a	Proline
		b	Tryptophan
102	Which is an imino acid?	c	Arginine
		d	Glycine
			Hyoscine
		a	Vetrabutine
103	Which of the following is a spasmolytic agent	b c	
	and a series and a		Dipyrone
		d	All
		a	TRP
104	Recurring tympany is noticed in following condition	b	Diaphragmatic hernia
10-7	Tecestring tympany is nouced in following condition	c	Reticulo-omasal stenosis
		d	All
	A moting greater decioned to see a section of	a	Top crossing
105	A mating system designed to create a purebred	b	Incrosses
105	population by mating successive generations of non-	С	Incross breeding
	purebred females to purebred sires		Criss crossing
		d a	Phenothiazine & Amitraz
	Specific and floorid namely of systems are several to the	b	Oxyclozanide & Livamizole
106	Spastic and flaccid paralysis of worms are caused by the	c	Pyrantel & Piperazine
	following drugs respectively		Piperazine & Pyrantel
		d	r iperazine & Pyrantei

	Ī		Trichophyton yarrangasarr
107		a b	Trichophyton verrucossum
107	The causative agent for Ring worm infection in cattle		Microsporum gallinae
	·	C	Trichophyton mentagrophytes
		d	Both a& c
		a	Fumerate reductase is not present in
			flukes and tapeworms
		b	Acetyl choline transmission is not
108	Ivermectin is not effective against flukes and tapeworm		present in flukes and tapeworms
-	infections because	c	Mitochondrial phosphorylation is
			not present in flukes and tapeworms
		d	GABA transmission is not present
			in flukes and tapeworms
		<u>a</u>	Midgestation
100	Age at which testes descend into the scrotum/testicular	b	Between last few days of gestation
109	descent in Cats is		and first few days after birth
		С	Last few days of gestation
		d	2-5 days after birth
	l	a	Cysticercus bovis
110	Hepatitis cysticercosa" in sheep is a condition associated	b	Cysticercus cellulosae
110	with	c	Cysticercus tenuicollis
		d	Cysticercus fasciolaris
]		a	Pineal
111	Which one is exocrine gland?	b	Hypothalamus
111	which one is exoculic gland:		Sweat gland
		d	Adrenal gland
		a	Sperm
112	Sertoli cell secrete?	b	Testosterone
112	Setton cen secrete:	С	seminal fluid
		d	Estrogen
	Antibiotic which is not bacteriostatic?	a	Tetracycline
112		b	chloramphenichol
113		c	Ampicillin
		d	All of them
		a	A
,,,	William in the section of the sectio	b	D
114	What vitamin is not fat soluble?	c	E
	 	d	C
		a	Pellets
		b	Grain
115	Horses prone to esophageal obstruction should not be fed	c	Hay
	 	d	Salt
		a	4 months
	During pregnancy, goats require extra dietary energy during	<u>u</u> b	3 months
116	the last	c	2 months
		d	1 week
		a	Birth
	Most scent glands in male goats can be destroyed at the	b	Weaning
117	time of	c	Foot trimming
		d d	Dehorning Dehorning
			Bucket feeding
	Which of the following is not recommended for a second	a b	Bottle feeding
118	Which of the following is not recommended for a weak foal?		
	1041:	d d	Nasogastric intubation
			Intravenous nutrition
	Look of what attacking to the	<u>a</u> b	A K
119	Lack of what vitamin can cause deafness, tissue malfunction, and large coarse skin lesions in dogs?		
			B 1
		d	B 12

What clinical condition is often mistaken for obesity and may conceal malnutrition?   C Anemia			a	Diarrhea
may conceal malnutrition?    C		What clinical condition is often mistaken for obesity and		
Mat nutrient makes up the greatest part of most dog rations and supplies energy?   Carbohydrates   Carbohydrates	120			
What nutrient makes up the greatest part of most dog rations and supplies energy?  What nutrient will provide the most calories per gram?  What nutrient will provide the most calories per gram?  What is a trichobezoar?  What is a trichobezoar?  What piece of restraint equipment is most commonly used on horses?  What piece of restraint equipment is most commonly used on horses?  The knot or hitch used to secure a rope to a vertical bar without slippage is the  The knot or hitch used to secure a rope to a vertical bar without slippage is the  When restraining a rooster, be most careful of the  When restraining a rooster, be most careful of the  The knot or in the used to secure a rope to a vertical bar without slippage is the  When restraining a rooster, be most careful of the  The knot or hitch used to secure a rope to a vertical bar without slippage is the  The knot or hitch used to secure a rope to a vertical bar without slippage is the  A Clove hitch  B Halter tie  C Half hitch  d Bowline  B Beak  B Dairy bull  D Lose bladder and bowel control  C Sit in one spont  C Lose bladder and bowel control  C Dairy cow  d Beef cow  The "shepherd's crook" is used around the  The "shepherd's crook" is used around the  The "shepherd's crook" is used around the		may concear maintained.		
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122   What nutrient will provide the most calories per gram?   a Carbohydrates	121			
122 What nutrient will provide the most calories per gram?		rations and supplies energy:		
What nutrient will provide the most calories per gram?    123				
What nutrient will provide the most calories per gram?    C Vitamins		-		· ·
Harrical Proteins  a Hairball  b Laceration  c Abscess on the body surface  d Any ingested metal foreign body  a Twitch  b Hobbles  c Cradle  d Halter  d Halter  c Calle  d Halter  a Clove hitch  b Halter tie  c Half hitch  d Bowline  a Beak  b Spurs  c Wings  c Wings  c Wings  c Wings  c Wings  feet  A Cower in a corner  b Lose bladder and bowel control  place is to  Of the cattle listed, which is most likely to be docile?  The "shepherd's crook" is used around the  d Proteins  a Hairball  b Laceration  c Abscess on the body surface  d Any ingested metal foreign body  a Twitch  b Hobbles  c Cradle  d Halfer  a Clove hitch  b Halter tie  c Half hitch  d Bowline  a Beak  b Spurs  c Wings  d Feet  c Wings  d Feet  d Loose bladder and bowel control  c Sit in one spot  d Look around and investigate  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  Front leg  b Chest  c Back leg	122	What nutrient will provide the most calories per gram?		
What is a trichobezoar?				
What is a trichobezoar?   b   Laceration   c   Abscess on the body surface   d   Any ingested metal foreign body   a   Twitch   b   Hobbles   c   Cradle   d   Halter   a   Clove hitch   d   Bowline   d   Bowline   d   Feet   Eet   E			-	
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When restraining a rooster, be most careful of the    Composition			d	Bowline
When restraining a rooster, be most careful of the  C Wings  d Feet  a Cower in a corner  b Lose bladder and bowel control  c Sit in one spot  d Look around and investigate  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  The "shepherd's crook" is used around the  The "shepherd's crook" is used around the  C Wings  a Cower in a corner  b Lose bladder and bowel control  c Sit in one spot  d Look around and investigate  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  a Front leg  b Chest  c Back leg			a	Beak
127 Normal behavior for a healthy, well-socialized cat in a new place is to  128 Of the cattle listed, which is most likely to be docile?  129 The "shepherd's crook" is used around the  129 Cower in a corner  a Cower in a corner  b Lose bladder and bowel control  c Sit in one spot  d Look around and investigate  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  a Front leg  b Chest  c Back leg	126	When made in it a constant has made a sector of the	b	Spurs
Normal behavior for a healthy, well-socialized cat in a new place is to  128 Of the cattle listed, which is most likely to be docile?  129 The "shepherd's crook" is used around the    A	120	when restraining a rooster, be most careful of the	С	Wings
Normal behavior for a healthy, well-socialized cat in a new place is to    Dairy bull			d	Feet
place is to  c Sit in one spot d Look around and investigate a Dairy bull b Beef bull c Dairy cow d Beef cow a Front leg b Chest c Back leg			a	Cower in a corner
place is to  c Sit in one spot d Look around and investigate a Dairy bull b Beef bull c Dairy cow d Beef cow d Beef cow The "shepherd's crook" is used around the  c Back leg	107	Normal behavior for a healthy, well-socialized cat in a new	b	Lose bladder and bowel control
d Look around and investigate  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  a Front leg  b Chest  c Back leg	127			
128 Of the cattle listed, which is most likely to be docile?  129 The "shepherd's crook" is used around the  a Dairy bull  b Beef bull  c Dairy cow  d Beef cow  a Front leg  b Chest  c Back leg		•	d	
Of the cattle listed, which is most likely to be docile?    Dairy cow			a	
128 Of the cattle listed, which is most likely to be docile?  c Dairy cow d Beef cow a Front leg b Chest c Back leg	4.00			
d Beef cow  a Front leg  b Chest  c Back leg	128	Of the cattle listed, which is most likely to be docile?		
129 The "shepherd's crook" is used around the  a Front leg b Chest c Back leg				
The "shepherd's crook" is used around the  b Chest c Back leg				
129 The "shepherd's crook" is used around the c Back leg				
	129	The "shepherd's crook" is used around the		
. I d   Neck			d	Neck

**Key Miscellaneous Section C:** 

No.	Answer	No.	Answer	No.	Answer
1	A	51	С	101	A
2	A	52	D	102	A
3	В	53	В	103	D
4	В	54	С	104	В
5	D	55	D	105	A
6	В	56	D	106	С
7	В	57	С	107	D
8	D	58	A	108	D
9	В	59	D	109	D
10	С	60	D	110	С
11	В	61	D	111	С
12	С	62	В	112	В
13	В	63	С	113	С
14	A	64	A	114	D
15	D	65	В	115	A
16	С	66	С	116	С
17	В	67	В	117	D
18	A	68	A	118	В
19	A	69	D	119	A
20	D	70	С	120	В
21	A	71	С	121	С
22	В	72	D	122	В
23	С	73	В	123	A
24	В	74	С	124	В
25	D	75	A	125	A
26	В	76	С	126	В
27	D	77	D	127	D
28	В	78	D	128	С
29	D	79	В	129	С
30	С	80	D		
31	В	81	D		
32	D	82	A		
33	С	83	A		
34	В	84	A		
35	С	85	C		
36	С	86	A		
37	A	87	D		
38	В	88	C		
39	A	89	A		
40	D	90	A		
41	A	91	C		
42	D	92	A		
43	A	93	D		
44	В	94	В		
45	A	95	C		
46	C	96	A		
47	В	97	C		
48	C	98	В		
49	C	99	C		
50	В	100	D		

# Parasitology

# PARA Section A: Protozoology

Haemoglobinuria is seen in-	No.	Question	Choice	Answer
Haemoglobinuria is seen in-				
c Salmonellosis d Pasturellosis a Unicellular organisms b Obtain their energy from organic material material c Contain genetic material in a muclear envelop d Possess a rigid cellulose wall a Excystation c Sporogony d Merogony d Me		Haemoglobinuria is seen in-	b	
All are true for protozoa, except  All are true for protozoa, except  All are true for protozoa, except  Contain genetic material in a nuclear envelop d Possess a rigid cellulose wall a Excystation c Sporogony d Merogony a Glosssina  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans is caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  All of the following protozoa are known as diplomonads  Trypanosoma equiperdum c Trypanosoma equiperdum c Trypanosoma equiperdum c Trypanosoma evansi d Trypanosoma evansi d Cryptosporidium a Cryptosporidium b Giardia c Entamoeba d Eimeria a Leishmaina d Eimanoeba d Trypanosoma cruzi c Trypanosoma cruzi c Entamoeba d Eimeria a Leishmaina d Pediculosis capitis d Ped	1		С	
All are true for protozoa, except  All are true for protozoa, except  The conversion of a sporozoites to cyst form is known as  The conversion of a sporozoites to cyst form is known as  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans is caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans is caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans is caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  Trypanosoma equiperdum  Trypanosoma evansi  All of the following protozoa are known as diplomonads  The following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  The inflamosoma cruzi is transmitted by  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma equiperdum  Trypanosoma equiperdum  Trypanosoma cruzi  Trypanosoma equiperdum  Trypanosoma equiperdum  Trypanosoma equiperdum  Trypanosoma cruzi  Trypanosoma equiperdum  T				
All are true for protozoa, except    Contain genetic material in a muclear envelop   Contain genetic material in a muclear envelop   Possess arigid cellulose wall   a Excystation   Exc				
All are true for protozoa, except  C Contain genetic material in a nuclear envelop  d Possess a rigid cellulose wall  a Excystation  b Encystation  c Sporogony  d Merogony  a Glosssina  Trypanosoma brucei is transmitted by  Trypanosoma brucei is b Giardia  Trypanosoma brucei  D Trypanosoma brucei  D Trypanosoma brucei  D Trypanosoma evansi  D Trypanosoma brucei  D Trypanosoma evansi  D Trypanosoma brucei  D Trypanosoma brucei  D Trypanosoma brucei  D Trypanosoma brucei  D Giadia  D Trypanosoma brucei  D Giadia  D Trypanosoma brucei  D Giadia  D Trypanosoma brucei  D Trypanosoma cruzi  D Trypano				
All are true for protozoa, except    C   Contain genetic material in a nuclear envelop	_			
The conversion of a sporozoites to cyst form is known as  The conversion of a sporozoites to cyst form is known as  The conversion of a sporozoites to cyst form is known as  The conversion of a sporozoites to cyst form is known as  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas discase in humans is caused by  Chagas discase in humans is caused by  Trypanosoma evansi  Trypanosoma evansi  Trypanosoma evansi  Trypanosoma evansi  Trypanosoma evansi  Trypanosoma evansi  C Entamoeba  d Eimeria  a Leishmaina  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  Trypanosoma cruzi  Trypanosoma cruzi  Trypanosoma cruzi is transmitted by  Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  Trypanosoma evansi  d Trypanosoma evansi	2	All are true for protozoa, except	С	
The conversion of a sporozoites to cyst form is known as  The conversion of a sporozoites to cyst form is known as  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in cattle following protozoa are known as diplomonads  All of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  Nagana disease in cattle is caused by  Trypanosoma cruzi  Trypanosoma cruzi is transmitted by  Trypanosoma cruzi  Trypanosoma cruzi is transmitted by  Trypanosoma cruzi  Trypanosoma cruzi is transmitted by  Trypanosoma cruzi  The epimastigote form of Trypanosoma can be found in  The epimastigote form of Trypanosoma can be found in  The inflammation at the site of bite by Trypanosoma  Chancre  Dek hunter's itch				
The conversion of a sporozoites to cyst form is known as  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  Trypanosoma brucei  b Trypanosoma equiperdum  c Trypanosoma equiperdum  c Trypanosoma equiperdum  d Trypanosoma eruzi  a Cryptosporidium  Which of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  The panosoma cruzi is transmitted by  Trypanosoma cruzi  Trypanosoma cruzi is transmitted by  Trypanosoma cruzi  The epimastigote form of Trypanosoma can be found in  The inflammation at the site of bite by Trypanosoma  b Winterbottom's sign  b Uniterbottom's sign  b Uniterbottom's sign  b Uniterbottom's sign  b Uniterbottom's sign  c Duck hunter's iteh			d	
The conversion of a sporozoites to cyst form is known as a Sporogony defends the conversion of a sporozoites to cyst form is known as defends a Sporogony defends a Sporogonitiem defends a Sporog			a	-
as   C   Sporogony   d   Merogony   d   Merogony   a   Glosssina   b   Triatoma   c   Pulex irritans   d   Pediculosis capitis   a   Cryptosporidium   b   Giardia   c   Entamoeba   d   Trypanosoma brucei   b   Trypanosoma brucei   a   Trypanosoma brucei   b   Giardia   c   Entamoeba   d   Trypanosoma equiperdum   c   Trypanosoma equiperdum   d   Trypanosoma equiperdum   c   Trypanosoma equiperdum   d   Eimeria   a   Leishmaina   d   Eimeria   a   Leishmaina   b   Giadia   c   Entamoeba   d   Cryptosporidium   b   Giadia   c   Entamoeba   d   Eimeria   a   Leishmaina   d   Trypanosoma brucei   b   Trypanosoma brucei   b   Trypanosoma equiperdum   d   Trypanosoma equiperdum	2	The conversion of a sporozoites to cyst form is known	b	
Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Triatoma  c Pulex irritans d Pediculosis capitis a Cryptosporidium  a Trypanosoma brucei  b Giardia c Entamoeba d Toxoplasma a Trypanosoma brucei b Trypanosoma dequiperdum c Trypanosoma evansi d Trypanosoma evansi d Trypanosoma cruzi a Cryptosporidium  b Giardia c Entamoeba d Trypanosoma brucei b Trypanosoma capiperdum c Trypanosoma cruzi a Cryptosporidium  b Giardia c Intamoeba d Eimeria a Leishmaina b Giardia c Entamoeba d Eimeria a Leishmaina b Giardia c Entamoeba d Eimeria a Leishmaina b Giardia c Entamoeba d Trypanosoma cruzi c Trypanosoma brucei b Trypanosoma cruzi c Entamoeba d Trypanosoma cruzi c Pulex irritans d Pediculosis capitis a Glosssina b Trypanosoma cruzi c Trypanosoma equiperdum a Glosssina b Trypanosoma equiperdum c Pulex irritans d Pediculosis capitis a Mid gut of vector c Salivary glands of vector d Faeces of vector d Faeces of vector  b Winterbottom's sign c Duck hunter's itch	3		С	•
Trypanosoma brucei is transmitted by  Trypanosoma brucei is transmitted by  Triatoma  c Pulex irritans  d Pediculosis capitis  a Cryptosporidium  b Giardia  intestine in humans are caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  c Trypanosoma equiperdum  c Trypanosoma equiperdum  c Trypanosoma equiperdum  c Trypanosoma equiperdum  d Trypanosoma equiperdum  c Trypanosoma equiperdum  c Trypanosoma equiperdum  d Trypanosoma equiperdum  c Trypanosoma equiperdum  d Trypanosoma equiperdum  c Entamoeba  d Eimeria  a Leishmaina  All of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  Trypanosoma cruzi is transmitted by  Trypanosoma cruzi  d Trypanosoma brucei  b Trypanosoma cruzi  c Trypanosoma brucei  b Trypanosoma cruzi  c Trypanosoma cruzi  c Trypanosoma equiperdum  a Glosssina  b Triatoma  c Pulex irritans  d Pediculosis capitis  a Mid gut of vector  b Hind gut of vector  c Salivary glands of vector  d Faeces of vector  a Chancre  b Winterbottom's sign  c Duck hunter's itch				
Trypanosoma brucei is transmitted by    Tripanosoma brucei is transmitted by   Chagas disease in humans is caused by   Chagas			a	
Trypanosoma brucei is transmitted by  C Pulex irritans d Pediculosis capitis a Cryptosporidium b Giardia c Entamoeba d Trypanosoma equiperdum c Trypanosoma evansi d Trypanosoma equiperdum b Giardia c Entamoeba d Trypanosoma equiperdum c Trypanosoma evansi d Trypanosoma evansi		m		
The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Trypanosoma equiperdum  Chagas disease in humans is caused by  Which of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  C Entamoeba  C Entamoeba  C Entamoeba  C Entamoeba  C Entamoeba  C Entamoeba  C Trypanosoma brucei  a Leishmaina  A Cryptosporidium  A Cryptosporidium  A Cryptosporidium  A Cryptosporidium  A Trypanosoma brucei  b Trypanosoma evansi  d Cryptosporidium  A Trypanosoma brucei  b Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  a Trypanosoma evansi  b Giardia  C Entamoeba  C Entamoeba  C Fatamoeba  C Fatamoeba  C Fatamoeba  D Giardia  A Leishmaina  A Leishmaina  A Leishmaina  A Leishmaina  A Trypanosoma evansi  d Trypanosoma	4	Trypanosoma brucei is transmitted by		
The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  C Trypanosoma equiperdum  C Trypanosoma cruzi  a Cryptosporidium  b Giardia  C Entamoeba  d Eimeria  a Leishmaina  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  Brypanosoma cruzi  C Entamoeba  C Trypanosoma equiperdum  a Propanosoma cruzi  b Trypanosoma equiperdum  a Glosssina  b Triatoma  c Pulex irritans  d Pediculosis capitis  a Mid gut of vector  c Salivary glands of vector  c Salivary glands of vector  a Chancre  a Chancre  a Drock hunter's itch				
The flask-shaped ulcers in the mucosa of the large intestine in humans are caused by  Chagas disease in humans is caused by  Chagas dis				_
intestine in humans are caused by  C Entamoeba d Toxoplasma a Trypanosoma brucei b Trypanosoma equiperdum c Trypanosoma evansi d Eimeria a Leishmaina All of the following protozoa are known as dexcept d Eimeria a Leishmaina D Giadia C Entamoeba d Eimeria a Leishmaina D Giadia C Entamoeba d Eimeria a Leishmaina D Giadia C Entamoeba d Trypanosoma brucei D Trypanosoma brucei D Trypanosoma cruzi C Trypanosoma evansi D Trypanosoma	5	The flask-shaped ulcers in the mucosa of the large		•••
Chagas disease in humans is caused by  Which of the following protozoa are known as diplomonads  Chagana disease  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  Chagas disease in cattle is caused by  All of the following protozoa are food and water-borne, and a Lishmaina  Chagana disease in cattle is caused by  Chagana disease in			С	Entamoeba
Chagas disease in humans is caused by  Chagas disease in humans is caused by  Chagas disease in humans is caused by  Trypanosoma equiperdum  C Trypanosoma equiperdum  C Trypanosoma evansi  d Trypanosoma cruzi  a Cryptosporidium  b Giardia  c Entamoeba  d Eimeria  a Leishmaina  b Giadia  c Entamoeba  d Cryptosporidium  b Giadia  c Entamoeba  d Cryptosporidium  a Trypanosoma brucei  b Trypanosoma brucei  b Trypanosoma brucei  b Trypanosoma equiperdum  a Trypanosoma evansi  d Trypanosoma equiperdum  a Glosssina  b Tritatoma  c Pulex irritans  d Pediculosis capitis  a Mid gut of vector  b Hind gut of vector  c Salivary glands of vector  d Faeces of vector  d Faeces of vector  a Chancre  b Which of the following protozoa are known as difference and the site of bite by Trypanosoma  b Which of the following protozoa are known as difference a Chancre  b Hind gut of vector  d Faeces of vector  a Chancre  b Winterbottom's sign  c Duck hunter's itch				Toxoplasma
Chagas disease in humans is caused by    Chagas disease in humans is caused by   Company		Chagas disease in humans is caused by		*
Chagas disease in humans is caused by  C Trypanosoma evansi d Trypanosoma cruzi a Cryptosporidium b Giardia c Entamoeba c Entamoeba d Eimeria a Leishmaina b Giadia c Entamoeba d Cryptosporidium  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are known as differential to b Giadia c Entamoeba c Entamoeba d Cryptosporidium a Trypanosoma brucei b Trypanosoma cruzi c Trypanosoma evansi d Propanosoma evansi d Trypanosoma				* *
Which of the following protozoa are known as diplomonads  Which of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  By Nagana disease in cattle is caused by  All of the following protozoa are food and water-borne, and a Leishmaina  By Giadia  C Entamoeba  C Entamoeba  C Entamoeba  C Trypanosoma brucei  b Trypanosoma cruzi  C Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma evansi  d Trypanosoma equiperdum  a Glosssina  b Triatoma  C Pulex irritans  d Pediculosis capitis  a Mid gut of vector  b Hind gut of vector  C Salivary glands of vector  d Faeces of vector  a Chancre  b Winterbottom's sign  c Duck hunter's itch	6			
Which of the following protozoa are known as diplomonads  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  By Nagana disease in cattle is caused by  All of the following protozoa are food and water-borne, except  By Nagana disease in cattle is caused by  All of the following protozoa are food and water-borne, except  By Nagana disease in cattle is caused by  All of the following protozoa are known as definition in the following protozoa are known as definition in the site of bite by Trypanosoma and be found in the site of bite by Trypanosoma are known as diplomonads  Comparison in the following protozoa are known as diplomonads  Comparison in the site of bite by Trypanosoma be found in the site of bite by Trypanosoma be found in the site of bite by Trypanosoma by Winterbottom's sign by Winterbottom's sign comparison in the site of bite by Trypanosoma by Winterbottom's sign comparison in the site of bite by Trypanosoma compa				**
Which of the following protozoa are known as diplomonads  8 All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, b Giadia  C Entamoeba  C Entamoeba  C Entamoeba  C Entamoeba  C Trypanosoma brucei  D Trypanosoma brucei  D Trypanosoma cruzi  C Trypanosoma evansi  d Trypansoma equiperdum  a Glosssina  D Triatoma  C Pulex irritans  d Pediculosis capitis  A Mid gut of vector  D Hind gut of vector  D Hind gut of vector  C Salivary glands of vector  D Salivary glands of vector  A Faeces of vector  The inflammation at the site of bite by Trypanosoma  B Winterbottom's sign  C Duck hunter's itch				
diplomonads    C		Which of the following protozoa are known as		
All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  Box Giadia  C Entamoeba  d Cryptosporidium  a Trypanosoma brucei  b Trypanosoma cruzi  c Trypanosoma evansi  d Trypanosoma equiperdum  a Glosssina  b Triatoma  c Pulex irritans  d Pediculosis capitis  A Mid gut of vector  b Hind gut of vector  c Salivary glands of vector  d Faeces of vector  a Chancre  The inflammation at the site of bite by Trypanosoma  b Winterbottom's sign  c Duck hunter's itch	7			
All of the following protozoa are food and water-borne, except  All of the following protozoa are food and water-borne, except  By Nagana disease in cattle is caused by  All of the following protozoa are food and water-borne, except  By Carptosporidium  Carptosoma evansi  Della Glosssina  Della Trypanosoma equiperdum  Carptosporidium  Carptosporidium  A Trypanosoma equiperdum  A Glosssina  Della Pediculosis capitis  A Mid gut of vector  Casalivary glands of vector  Chancre  Duck hunter's itch				
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Solution   Content		All of the following protozoa are food and water-borne.		
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Nagana disease in cattle is caused by  C Tryapnosoma evansi d Trypansoma equiperdum  a Glosssina b Triatoma c Pulex irritans d Pediculosis capitis a Mid gut of vector b Hind gut of vector c Salivary glands of vector d Faeces of vector  The inflammation at the site of bite by Trypanosoma brucei is known  C Tryapnosoma evansi a Glosssina b Triatoma c Pulex irritans d Pediculosis capitis a Mid gut of vector c Salivary glands of vector d Faeces of vector a Chancre b Winterbottom's sign c Duck hunter's itch	_			
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10 Trypanosoma cruzi is transmitted by  Trypanosoma cruzi is transmitted by  C Pulex irritans  d Pediculosis capitis  a Mid gut of vector  b Hind gut of vector  c Salivary glands of vector  d Faeces of vector  a Chancre  The inflammation at the site of bite by Trypanosoma  brucei is known  Duck hunter's itch				• •
10 Trypanosoma cruzi is transmitted by    Deficion   Compute Programme   Compute Progr				* * * * * * * * * * * * * * * * * * * *
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11 The epimastigote form of Trypanosoma can be found in  The epimastigote form of Trypanosoma can be found in  The inflammation at the site of bite by Trypanosoma brucei is known  Description  A Mid gut of vector  C Salivary glands of vector  d Faeces of vector  a Chancre  b Winterbottom's sign  C Duck hunter's itch	10	Trypanosoma cruzi is transmitted by		
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d Faeces of vector  a Chancre  The inflammation at the site of bite by Trypanosoma brucei is known  d Faeces of vector a Chancre b Winterbottom's sign c Duck hunter's itch	11	The epimastigote form of <i>Trypanosoma</i> can be found in		
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The inflammation at the site of bite by <i>Trypanosoma</i> brucei is known  b Winterbottom's sign c Duck hunter's itch				
brucei is known c Duck hunter's itch		The inflammation at the site of bite by Tryngnosoma		
	12			
			d	Schizophrenia

		a	Trypanosoma Chancre
13	The enlarged lymph nodes especially at posterior	b	Winter bottom's sign
	cervical region in Trypanosoma brucei infection is	c	Chagoma
	known as	d	Duck hunter's itch
			Ethanol
		a	
14	Trypanosoma brucei induces sleeping sickness in host	b	Methanol
	by the production of	c	Tryptophol
		d	Isopropanol
	The unilateral conjunctivitis together with oedema of	a	Romana's sign
15	upper and lower eye lids and cheek Trypanosoma cruzi	b	Winter bottom's sign
13	infection is known as	c	Spring bottom's sign
	infection is known as	d	Summer bottom's sign
		a	RBCs
		b	Macrophages
16	Leishmania multiply within	c	Hepatosytes
		d	Spleenocytes
			Leishmania donovani
	Cutaneous leishmaniosis or "oriental sore" in humans is	<u>a</u> b	Leishmania chagasi
17	<b>.</b>		
	caused by	C	Leishmania infantum
		d	Leishmania tropica
		a	Leishmania donovani
18	Visceral leishmaniosis in humans is caused by	b	Leishmania chagasi
10		c	Leishmania infantum
		d	Leishmania tropica
	Trypomastigotes stage of <i>Trypanosoma</i> usually found in	a	Invertebrate host
10		b	Vertebrate host
19		С	Both
		d	None
		a	Stercoraria
	Species of Trypanosomes develop in the anterior portion	b	Salivaria
20	of the insect gut are called as	c	Both
	or the import gave are called as	d	None
		a	Stercoraria
	Species of <i>Trypanosomes</i> develop in the posterior	b	Salivaria
21	portion of the insect gut are called as		Both
	portion of the insect gut are caned as	C	
		d	None
		a	One week
22	How long after conception does Tritrichomonas foetus	b	2-3 weeks
	cause abortions in cattle?	c	2-3 months
		d	4-6 months
	Which of the following species is responsible for East	a	Theileria hirci
23	Coast Fever (ECF)?	b	Theileria parva
2.5	Count I CVCI (LCI):	c	Babesia bovis
		d	Theileria mutans
		a	Theileria sergenti
	Which of the following species is responsible for Texas	b	Theileria annulat
24	Cattle Fever (TCF)?	c	Babesia bigemina
	Cause I Cver (I CI):		Babesia bovis
		d a	Rhipicephalus
	Which of the following genera ticks is the primary	b	Hyalomma
25			Amblyomma
	vector for Theileria para?	C	
		d	Haemaphysalis
		<u>a</u> b	one nucleus
26	Giardia trophozoites contains		two nuclei
			three nuclei
		d	four nuclei

A unique ultrastructural feature of Giardia is the adhesive disk also called as  28 Balantidium coli contains  29 The sporulated oocyst of genus Eimeria contain  29 Each sporocyst of genus Eimeria contains  20 Each sporocyst of genus Eimeria contains  30 Each sporocyst of genus Eimeria contains  31 Cecal coccidiosis of chickens is caused by  32 In chickens, Intestinal coccidiosis is caused by  33 Cecal coccidiosis in chickens may be confused with  34 Toxoplasma gondii, a member of the  35 Lesihmaniasis is transmitted by  36 Docyst of genus Isospora contains  37 The cysts of sarcocystis are found in the  38 The cysts of the genus sarcocystis are know as  39 The tachyzoite of Toxoplasma are  40 None  41 In dalbove  51 In chickens may be confused with  52 Sporozoia  53 Sporocyst  54 Sporocyst  55 Sporozoia  56 Sporozoia  57 Sporozoia  58 Sporozoia  59 Sporozoia  59 Sporozoia  50 Sporozoia  50 Sporozoia  50 Sporozoia  51 Sporozoia  52 Sporozoia  53 Sporocyst  54 Sporozoia  55 Sporozoia  56 Sporozoia  57 Sporozoia  58 Sporozoia  59 Sporozoia  59 Sporozoia  60 Sporozoia  70 Sporozoia  71 Sporozoia  72 Sporozoia  73 Sporozoia  74 Sporozoia  75 Sporozoia  75 Sporozoia  76 Sporozoia  77 Sporozoia  78 Sporozoia  78 Sporozoia  79 Sporozoia  70 Sporozoia  70 Sporozoia  71 Sporozoia  71 Sporozoia  72 Sporozoia  73 Sporozoia  74 Sporozoia  75 Sporozoia  75 Sporozoia  76 Sporozoia  77 Sporozoia  78 Sporozoia  78 Sporozoia  79 Sporozoia  70 Sporozoia  70 Sporozoia  70 Sporozoia  71 Sporozoia  71 Sporozoia  71 Sporozoia  72 Sporozoia  73 Sporozoia  74 Sporozoia  75 Sporozoia  75 Sporozoia  76 Sporozoia  77 Sporozoia  78 Sporozoia  78 Sporozoia  79 Sporozoia  70 Sporozoia  70 Sporozoia  70 Sporozoia  70 Sporozoia  71 Sporozoia  71 Sporozoia  72 Sporozoia  73 Sporozoia  74 Sporozoia  75 Sporozoia  75 Sporozoia  76 Sporozoia  77 Sporozoia  78 Sporozoia  78 Sporozoia  79 Sporozoia  70 Sporozoia  70 Sporozoia  70 Sporozoia  70 Sporozoia  71 Sporozoia  71 Sporozoia  72 Sporozoia  73 Sporozoia  74 Sporozoia  75 Sporozoia  75 Sporozoia			9	ventral disk
adhesive disk also called as  d all above  a macro nucleus  b micro nucleus  c Both  d None  a 2 sporocysts  b 3 sporocyst  c 4 sporocyst  d 6 sporocyst  d 6 sporocyst  a 2 sporocyst  c 4 sporozoites  b 4 sporozoites  d 8 sporozoites  d 8 sporozoites  d 8 sporozoites  a Elmeria acervulina  b Etemella  c Enecutrix  d all above  a 2 sporozoites  b 4 sporozoites  d 8 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  b 4 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  d 3 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  d 3 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  d 3 sporozoites  d 4 sporozoites  d 8 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  d 3 sporozoites  d 4 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites  d 3 sporozoites  d 4 sporozoites  d 8 sporozoites  d 1 sporozoites  d 1 sporozoites  d 1 sporozoites  d 2 sporozoites within it  c 3 sporozoites within it  c 4 sporocysts each having four sporozoites within it  c 5 sporozoites within it  d 8 sporozoites within it  c 6 sporocysts each having four sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 8 sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 8 sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 8 sporozoites within it  d 8 sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 8 sporozoites within it  d 9 sporozoites within it  d 9 sporozoites within it  d 9 sporozoites within it  d	27	A unique ultrastructural feature of Ciardia is the	a	
Balantidium coli contains	27			
Second contains   Second con		adhesive disk also called as		
Balantidium coli contains				
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The sporulated oocyst of genus Eimeria contain  The sporulated oocyst of genus Eimeria contain  The sporulated oocyst of genus Eimeria contain  The sporulated oocyst of genus Eimeria contains  Each sporocyst of genus Eimeria contains  Each	28	Balantidium coli contains	b	
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C   4 sporocyst   d   6 sporocyst   d   2 sporocoites   d   8 sporocoites   d			a	
C   4 sporocyst	29	The sporulated oncyst of genus Fineria contain	b	- ·
Bach sporocyst of genus Eimeria contains   Bach sporocytes	2)	The sportifaced obeyst of genus Limeria contain	С	4 sporocyst
Bach sporocyst of genus Eimeria contains   b   4 sporozoites			d	6 sporocyst
Cecal coccidiosis of chickens is caused by   Cecal coccidiosis in chickens may be confused with   Cecal coccidiosis in chickens may be confused   Cecal coccidiosis in chickens is caused by   Cecal coccidiosis in chickens may be confused   Cecal coccidiosis in chickens is caused by   Cecal coccidiosis in chickens in ch			a	2 sporozoites
Cecal coccidiosis of chickens is caused by  Cecal coccidiosis of chickens is caused by  Cecal coccidiosis of chickens is caused by  In chickens, Intestinal coccidiosis is caused by  In chickens, Intestinal coccidiosis is caused by  Cecal coccidiosis in chickens may be confused with  Cecal coccidiosis in chickens may be confused a language of central maxima.  Cecal coccidiosis in	20	Earl and a sector of a sector	b	4 sporozoites
Cecal coccidiosis of chickens is caused by   Cecal coccidiosis of chickens is caused by   December	30	Each sporocyst of genus Elmeria contains	С	6 sporozoites
Cecal coccidiosis of chickens is caused by  Energia acervulina  b E. tennella  c E. necatrix  d all above  a E. necatrix  d all above  a E. necatrix  c E. maxima  d all above  b E. brunetti  c E. maxima  d all above  a Blackhead  b salmonellosis  c Both  Toxoplasma gondii, a member of the  Toxoplasma gondii, a member of the  Toxoplasma gondii, a member of the  Lesihmaniasis is transmitted by  Lesihmaniasis is transmitted by  Toccyst of genus Isospora contains  The cysts of sarcocystis are found in the  The cysts of the genus sarcocystis are know as  The tachyzoite of Toxoplasma are  The tachyzoite of Toxoplasma are  Technical and Eimeria acervulina  b E. tennella  c E. mecatrix  d all above  a E. necatrix  d all above  a E. necatrix  d all above  a E. necatrix  c E. maxima  d all above  a Apicomplexa  Sporozoa  c Mastigophora  Cilliata  a Testes fly  b Horse fly  c Sand fly  d House fly  c Sand fly  d Saporocysts each having four sporozoites within it  b 4 sporocysts each having four sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 8 sporocysts each having four sporozoites within it  c 6 sporocysts each having four sporozoites within it  d 7 sporozoites within it  d 8 sporocysts each having four sporozoites within it  d 8 sporocysts each having four sporozoites within it  d 8 sporocysts each having four sporozoites within it  d None  a Raimy's corpuscles  b Miescher's tubules  c Both  d None  a crescent or banana-shaped  b Oval shaped			d	
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1	31	Cecal coccidiosis of chickens is caused by		
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The cysts of the genus sarcocystis are know as			-	
Cecal coccidiosis in chickens may be confused with  Cecal coccidiosis in chickens may be confused  Both  Comparison  Cecal coccidiosis in chickens may be confused with  Cecal coccidiosis in chickens may be confused  Cecal coccidiosis in chickens may be confused  Cecal coccidiosis in chickens may be confused  A ploachema  Apicomplexa  Both  Cilliata  Cecal coccidiosis in chickens may be confused  Cecal coccidiosis in chickens apmore and blackhead  Cecal coccidiosis  Cecal coccidiosis  Cecal coccidiosis in chickens ablackens  Cecal coccidens  Apicomplexa  Apicomplexa  The styse fly  Collista  Cecal coccidens  Apicomplexa  Apicomplexa  Cecal coccidens  Apicomplexa  Apicomplexa  Cecal coccidens  Apicomplexa  Apicom	32	In chickens, Intestinal coccidiosis is caused by		
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The cysts of sarcocystis are found in the  The cysts of sarcocystis are found in the  The cysts of the genus sarcocystis are know as  The cysts of the genus sarcocystis are k			"	
The cysts of sarcocystis are found in the    Both	<b>-</b>		я	I
The cysts of sarcocystis are found in the  c Both d None  a Rainy's corpuscles b Miescher's tubules c Both d None  a Roiny's corpuscles b Miescher's tubules c Both d None a crescent or banana-shaped b Oval shaped c Pear shaped			<b>———</b>	
d None  a Rainy's corpuscles  b Miescher's tubules  c Both  d None  a crescent or banana-shaped  b Oval shaped  c Pear shaped	37	The cysts of sarcocystis are found in the		
The cysts of the genus sarcocystis are know as  The cysts of the genus sarcocystis are know as  The cysts of the genus sarcocystis are know as  C Both  d None  a crescent or banana-shaped  b Oval shaped  c Pear shaped		•		
The cysts of the genus sarcocystis are know as  b Miescher's tubules c Both d None a crescent or banana-shaped b Oval shaped c Pear shaped	<u> </u>			
The cysts of the genus sarcocystis are know as  C Both  d None  a crescent or banana-shaped  b Oval shaped  c Pear shaped				
The tachyzoite of <i>Toxoplasma</i> are  C Both  d None  a crescent or banana-shaped  b Oval shaped  c Pear shaped	38	The cysts of the genus sarcocystis are know as		
39 The tachyzoite of <i>Toxoplasma</i> are  a crescent or banana-shaped b Oval shaped c Pear shaped		The cysis of the genus surcoeysus are know as		
The tachyzoite of <i>Toxoplasma</i> are  b Oval shaped c Pear shaped			d	
c Pear shaped				
c Pear shaped	30	The tachyzoite of Toxonlasma are	b	
	39	The tachyzone of Toxopiasma are		
d rod shaped			d	rod shaped

	Drug of choice against east coast fever	a	arvaquone
	21 mg of thoret against that to have 10 ver	b	buparvaquone
40		c	halofuginone lactate
		d	tetracycline
		a	Horse flies
		b	deer flies
41	Anaplasmosis transmitted mechanically by	c	stable flies
		d	all above
		a	horse fly
		b	house fly
42	Leucocytozoonosis is transmitted	c	Tsetse fly
		d	black fly
		a	black quarter
	Histomonas meleagridis cause a disease commonly	b	Blackhead
43	called	c	Cracker
	canca	d	Anemia
			Plasmodium falciparum
	Which of the following species of plasmodium cause	a b	Plasmodium relictum
44	Which of the following species of plasmodium cause malaria in birds		Plasmodium malariae
	mararia ili birus	c d	
		-	Plasmodium bubalis Plasmodium malariae
	Which of the following species of plasmodium cause	a	
45	malaria in animals	b	Plasmodium relictum
		С	Plasmodium polare
		d	Plasmodium circumflexum
		a	Vertebrate host
46	Amastigote form of <i>Leishmaina</i> can be found in	b	Invertebrate host
	č	С	Intermediate host
		d	All of the above
	Trypanosoma equiperdum cause disease in equines	a	Nagana
47	called as	b c	Dorin
			Surra
		d	Muri
		a	Haemonchus contortus
48	The protozoan parasite <i>Histomonas meleagridis</i> is	b	Ancylostoma caninum
	transmitted through ingestion of eggs of	С	Dirofilaria immitus
		d	Heterakis gallinarum
		a	Trypanosoma
49	Congenital hydrocephalus is mostly seen in which of the	b	Leishmania
'	following protozoal infection?		Toxoplasma
		d	Babesia
		a	Anaplasmosis
50	Which of the following is a rickettsial disease?	b	Babesiosis
30	which of the following is a ficketisfal disease?		Toxoplasmosis
		d	Histomoniasis

PARA Key Section A: Protozoology

No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	A	14	С	27	A	40	В
2	D	15	В	28	С	41	D
3	В	16	В	29	C	42	D
4	A	17	D	30	A	43	В
5	С	18	A	31	В	44	В
6	D	19	В	32	D	45	A
7	В	20	В	33	В	46	A
8	A	21	A	34	A	47	В
9	A	22	В	35	C	48	D
10	В	23	В	36	A	49	С
11	С	24	С	37	A	50	A
12	A	25	A	38	В		
13	В	26	В	39	A		

# **PARA Section B: Helminthology**

No.	Question	Choice	Answer
		a	Binding with protein tubulin
	Benzimidazoles work against parasites by	b	Mimicking acetylcholine
1	Demaindances were against parasites by	c	Paralysing worms
		d	None of above
		a	Binding with protein tubulin
	Levamisole work against parasites by	b	Mimicking acetylcholine
2		c	Both
		d	None
		a	Ticks
		b	Protozoa
3	In horses Fenbendazole is used to kill		Mites
3	III noises rendendazote is used to kin	С	Helminthes
		d	
		e	None
		a	Stopping the energy metabolism
		b	Inhibiting the Cholinesterase
4	Avermectins act against parasites by	С	Changing the chloride ion channel
			activity
		d	None of these
		a	Niclosamide
5	Anti-cestodal drugs include	b	Organophosphate
	Tinti cestodai diugs incidde	С	Levamisole
		d	None
	Praziquantel is effective against	a	Trematodes
6		b	Cestodes
0		С	Nematodes
		d	Both a & b
		a	Accidental
7	Humana and hosts of Essaisla honging	b	Definative
/	Humans are hosts of Fasciola hepatica	c	Intermediate
		D	None
		a	Almost all trematodes are
			hermaphrodite
		b	All are hermaphrodite except
8	Which one of the followings is correct statement		Schistosomatidae
		С	Members of Genus Fasciola are
			hermaphrodite
		d	All of above
		a	Fasciola hepatica
	Y (1) (1) 1 1 1	b	Opisthorchisviverrini
9	Lancet liver fluke is the common name of	С	Clonorchissinensis
		d	None
		a	Fasciolahepatica
		b	Fasciola hepatica
10	Which one is the correct way to write the name of an	С	Fasciola hepatica
	organism in Binomial nomenclature system?	d	Both a and b
		e	All of above
		a	Dirofilariaimmitis
		b	Diptelonemareconditum
			Taeniasaginata
11	Heart worm of dog is the name given to	c d	Taeniasalium Taeniasolium
		e e	Setariacervi
			Echinococcusgranulosus

			77 7
		a	Haemonchuscontortus
12	Fragments of parasites present in faeces	b	Trichostrongylus
		c	Oesophagostomum
		d	Ascaris lumbricoides
	Kidney worm of dog is	a	Dioctophymarenale
		b	Necatoramericanus
13		c	Diptelonemareconditum
		d	Oesophagostomum
		e	Ascarislumbricoides
		a	Trichinellaspiralis
		b	Haemonchuscontortus
14	Helminth parasite found in muscles is	С	Trichostrongylus
	•	d	Oesophagostomum
		e	Ascarislumbricoides
		a	Haemonchosis
		b	Echinococcosis
15	River blindness is also known as	c	Onchcerciasis
13	Rever officiess is also known as	d	None of them
		e	All of above
		a	Fasciola hepatica Clonorchissinensis
1.0	Chinasa an Oniontal liven fluter is called as	b	
16	Chinese or Oriental liver fluke is called as	C	Fasciolabuskii
		d	Oesophagostomum
		e	Ascarislumbricoides
	Change of animal species for grazing in a particular pasture is known as	a	Alternate grazing
17		b	Rotational grazing
1,		С	Replacement grazing
		d	All of above
		a	Alternate grazing
		b	Replacement grazing
18	Change of pastures for the animals is known as	c	Rotational grazing
		d	All of above
		e	None
		a	July – August
		b	March – April
19	In Pakistan, the prevalence of gastrointestinal	С	November – December
	nematodes is higher during	d	January – February
		e	None
		a	Arrested larval development
		b	Prepatent period
20	Inhibited larval development is also known as	c	Dissemination
20	anneces for the development is the known us	d	Periparturient rise
		e e	None of above
		a	Overwintered larvae
	L3 may survive in the pastures from autumn until late	b	Arrested larvae
21			Mature larvae
\ \times_1	spring in sufficient numbers to initiate infection are called as	C d	Adults
		d	
-		e	None of above
		a	NaCl
22	Floatation solutions used for faecal examination are	1	Zn SO <sub>4</sub>
22	Trouted on solutions used for fuccui examination are	<u></u> b	Mg SO <sub>4</sub>
			All above
		d	None

	T		And distant the same and seems
		a .	Anthelmintic history and season
		b	Season and Type of parasites
23	Factors affecting faecal egg count are	С	Type of parasite spp. and breed of
		1	animal
		d	Breed of animal and season
		e	All above
	The anthelmintic also used for ectoparasites is	a	Ivermectin
		b	Benzimidazole
24		С	Levalmisole
		d	AIL
		e	None
		a	Fasciola
25	The parasite of marshy areas is	b	Haemonchus
23	The parasite of marshy areas is	c	Trichostrongylus
		d	None
		a	TaeniaSaginata
26	D	b	Haemonchus
26	Parasite transmitted by eating poorly cooked beef is	С	Trichostrongylus
		d	None
		a	TaeniaSaginata
		b	Haemonchus
27	Hydatidosis is caused by	c	Echinococusgranulosus
	Trydaudosis is caused by	d	Trichostrongylus
		e	None
		a	Ascarislumbricoides
	Following is the namatode parasite of poultry	b	Ascaridiagalli
28			Haemonchus
		С	Trichostrongylus
		d	Raillietina
		a .	
20		b	Taeniasaginata
29	The largest tapeworm of poultry is	С	Haemonchus
		d	Trichostrongylus
		e	None
		a	Host tissue
		b	Fluids
30	Nematodes mostly feed on	С	Gut contents
		d	Blood
		e	All
		a	Ovoviviparous
		b	Oviparous
31	Mode of reproduction of nematode is	С	Parthenogenesis
		d	a, b
		e	a, b, c
		a	Monoxenous
22	Direct life evals is also salled	b	Heteroxenous
32	Direct life cycle is also called	С	Complete
		d	None
		a	Arthropod
		b	Trematode
33	Usually the intermediate host of nematodes is	c	Both a and b
		d	None
		a	Ascarislumbricoides
		b	Haemonchus
34	Larvae of following nematodes can penetrate the skin	c	Trichostrongylus
34	Larvae of following nematodes can penetrate the skin	d	All
			None None
		e	rone

	T T		
	Maturation of Gastrointestinal nematodes mostly	a	Ground/soil
35		b	Vegetation
	occurs in Faeces	c	Intermediate host
		d	Gastrointestinal tract
		a	Parascarisequorum
		b	TaeniaSaginala
36	Large roundworm of horse is	c	Haemonchus
		d	Trichostrongylus
		e	None
		a	Diphyllobothriumlatum
		b	Toxocaravitulorum
37	Large roundworm of ruminants is	c	TaeniaSaginala
		d	Haemonchus
		e	None
		a	Diphyllobothriumlatum
		b	TaeniaSaginala
38	Caecal worm is the name of	С	Heterakisgallinarum
		d	Haemonchusspp.
		e	None
		a	Ancylostomacaninum
		b	Barderpole worm
39	Following is the example of hookworm	c	Haemonchuscontortus
0,	Tollowing is the example of hookworm	d	All of above
		e	None
		a	Cestodes
	Body of following parasite is ribbon like	b	Tapeworm
40		c	Roundworms
		d	a and b
		e	All of above
		a	Chinese liver fluke
		b	Oriental liver fluke
41	Clonorchis sinensis is commonly known as	c	Both of above
		d	None of above
		a	Bile duct
		b	Liver Parenchyma
42	Primary site of infection of adult Fasciola hepatica is	c	Skin
		d	Lung
		a	Testes fluke
		b	Liver Fluke
43	Common name of <i>Prosthogonimus macrorchis</i> is	c	Ruminal Fluke
		d	Oviduct Fluke
		a	Oviduct
		b	Bursa of fabricius
44	Prosthogonimus macrorchis is found in of FH	c	Both
		d	None
<u> </u>		a	Ovine
		b	Bovie
45	Oviduct fluke is parasite of	c	Equine
	-	d	None
		a	1-3
	Echinococcus granulosus normally contains following	b	3-5
46	number of segments	c	5-10
		d	10-100
		a	Counting the eggs on pasture
		b	Counting the eggs on pasture  Counting the adult worm in animals
47	Baermann apparatus is used for	c	Counting the egg per gram of faeces
',	Daermann apparatus is useu 101	d	Counting the egg per grain of faces  Counting the nematode larvae in sample
			None
L			110110

		a	Calculate egg per gram of faeces
		b	Estimate the infection level on pasture
48	Knott's concentration technique is used to	c	Diagnose microfilaria in blood
		d	All of above
		e	None
		a	Carnivores
49	Final host of Echinococcus granulosus is	b	Herbivores
49		c	Both
		d	None
		a	Nematodes
50	Among all helminths only following are having	b	Acanthocephalans
	segmented body	c	Trematodes
		d	Cestodes

PARA Key Section B: Helminthology

No.	Answer								
1	A	11	A	21	A	31	Е	41	C
2	В	12	A	22	D	32	A	42	A
3	D	13	A	23	Е	33	A	43	D
4	C	14	A	24	A	34	A	44	A
5	A	15	С	25	A	35	Е	45	D
6	D	16	В	26	A	36	A	46	В
7	A	17	A	27	С	37	В	47	D
8	В	18	С	28	В	38	С	48	C
9	C	19	A	29	A	39	A	49	A
10	D	20	A	30	Е	40	В	50	D

# PARA Section C: Entomology

No.	Question	Choice	Answer
110.	Question	a	CNS
		b	Growth and Development
		c	Metabolism (water and ion imbalance)
1	Insecticides generally targets the		& Energy Production.
		d	Circulatory System Interference
		e	All of these
		a	Axon and Dendrite of neuron
		b	Synapse
2	Choline Esterase Inhibitor plays at	С	Body of Neuron
		d	Generation of Impulse
		a	Ignition
		b	Burning of acids at Synapse
3	In CNS firing is meant for	С	Exiting the Axon of next neuron
	in Civil minig is inculte for	d	Changing the ecology of Synaptic
		u	Cleft
		a	Maintaining acid base balance
	In nervous tissue Sodium and Chloride pumps channel	b	Act as a buffer
4	works for	С	Conduction of Nerve impulse
	WOLKS TO	d	All of these
		a	Ivermectin
	Which broader categories used for Chloride channel modulator	b	Avermectin
5		С	Fipronil
		d	All of these
		e	Both b & c
		a	Blood clotting protein factors
	Anti-Coagulent insecticide has to mess with	b	Platelets aggregation factors
6		С	Vit. K availability
		d	All of these
		a	Silica gels
		b	Dusts
7	Organic Insecticides include	С	Boric Acids
		d	Fipronil
		a	Molting
		b	Metamorphosis
8	Juvenile hormone is essential for the process of	С	Both a & b
		d	None of these
		a	Insects
		b	Animals
9	Chitin synthatase inhibitor is lethal for	С	Humans
		d	All of these
		a	Bronchoconstriction
	The signs of poisoning with organophosphorous	b	Mydriasis
10	anticholinesterase insecticides do not include, in	c	Intestinal spasm
	Humans:	d	Increased bronchial secretions
		a	No enzyme
		b	Enzyme
11	The saliva of blood sucking insects has	c	Carbohydrates
		d	Lipids
		a	Touch
		b	Taste
12	Mechanoreceptor responds to which stimuli	С	Sound
		d	Chemical
L	<u> </u>	u	

		a	Spermatheca
	The aedeagus is also known as	b	Recepticulum seminis
13			Abdomen
		C	
		d	Penis
	Number of gastric caecae present in digestive system of	<u>a</u>	3-5
14		b	2-4
	insects	С	2-6
		d	5-10
	Foregut of insects is also known as	a	Stomodaeum
15		b	Mesentron
		c	Proctodaeum
		d	Recepticulum
		a	Protecting eggs
16	Ovipositor is used for	b	Releasing eggs
10	Ovipositor is assured	c	Hatching eggs
		d	Copulation
		a	Sterna
17	The dorsal surface of thorax is also known as	b	Pleura
1 /	The dorsal surface of thorax is also known as	c	Nota
		d	Plumose
		a	Nitric acid
10	The acid secreted by ants is	b	Sulphuric acid
18		С	Formic acid
		d	Citric acid
	The valve used to control the back flow of digesta from ventriculus to crop is	a	Mesentronic valve
1.0		b	Proctodaeal valve
19		С	Stomodaeal valve
		d	Atrial valve
		a	Prolegs
20	The legs present on the abdomen of the insects are	b	Prelegs
20	known as	С	Extra legs
		d	Rudimentary legs
		a	Chewing lice
2.1		b	Sucking lice
21	Phthiraptera is a	С	Mite
		d	Fly
		a	Non operculated
		b	Operculated
22	Eggs of Phthiptera are	С	Stalked
		d	None of above
		a	Shaft louse
		b	Wing louse
23	Menopon gallinae is of birds	c	Head louse
		d	None of above
		a	Horizontally
		b	Longitudinally
24	Members of Amblycera bite	c	Diagonally
	-	d	None of above
		a	Pigeons
		a b	Doves
25	Columbicola columbae is parasitic on		Both of these
		d d	None of these
			Vertically
		a b	Diagonally
26	Members of Ischnocera bite		Horizontally
		d d	All of these
		a	An or these

		a	Fluff louse
27	Goniocotes gallinae is known as	b	Shaft louse
27	Gontocotes gattinae is known as	С	Wing louse
		d	None
		a	Horse
• 0		b	Dog
28	Bovicola bovis is a louse of	c	Cat
		d	Cattle
			Skin
		a	Hair
29	Sites of louse infestation are	b	
		С	Feathers
		d	All
		a	Egg, nymph, adult
30	Life cycle stages of louse are as follow	b	Egg, larvae, adult
30	Life cycle stages of louse are as follow	c	Egg, larvae, nymph, adult
		d	All are correct
		a	Myriapoda
		b	Crustacea
31	Ticks belong to which major class?	c	Arachnida
		d	Insecta
			Mites
		a 1-	
32	Members of Order Diplopoda are also known as:	b	Centipedes
	Transcrip of Grace Bipropodu and and information	С	Millipedes
		d	None of these
	Following are orders of class Insecta except:	a	Hemiptera
33		b	Diptera
33		c	Odonata
		d	Amphipoda
		a	Opiliones
		b	Mysidacea
34	Following are orders of class Crustacea except:	С	Amphipoda
		d	Decapoda
			Insecta
		a b	Crustacea
35	Shrimps belong to the class:		
		С	Arachnida
		d	Myriapoda
		a	Hemiptera
36	Mosquitoes belong to the order:	b	Orthoptera
	integrations belong to the order.	С	Diptera
		d	Trichoptera
1		a	Ticks
27	Onder Asserts contained	b	Mites
37	Order Acarina contains:	С	Both
		d	None of these
		a	Apterygota
		b	Exopterygota
38	Lice are categorized in subclass as:		Endopterygota  Endopterygota
	5	C	None of these
<u> </u>		d	
		a	Insects
39	Centipedes are:	b	Arachnids
	F	С	Crustaceans
		d	Myriapods
		a	Ticks
40	Members of order Hemiptera are also called as:	b	Mites
40		С	Bugs
		d	Spiders
L			1 ~ F *****

			A 1' 1
	Exoskeleton, a segmented body and jointed appendages	a	Annelida
41		b	Porifera
	are attributed to phylum	c	Arthropoda
		d	Mollusca
	"Ladder like" nervous system is characteristic feature	a	Ctenophora
42		b	Nematomorpha
72	of	c	Acanthocephala
		d	Arthropoda
		a	Trilobitomorpha
12	Following are the subphylum of phylum arthropoda	b	Hexapoda
43	except	c	Myriapoda
		d	Brachiopoda
		a	Diplopoda
		b	Merostoma
44	Which class does not belong to phylum arthropoda	c	Arachnida
		d	Oligochaeta
		a	Diptera
	Order responsible for the spread of Dengue	b	Decapoda
45	Hemorrhagic Fever		Coleoptera
	Hemormagic rever	C	
		d	Lepidoptera
		a	Family Culicinae
46	Vector helping the transmission of West Nile Virus	b	Sub-family Anophelinae
	belong to	c	Family Anophelinae
		d	Sub-family Culicinae
	Cockroaches belong to the order	a	Dermaptera
47		b	Dictyoptera
4/		c	Mallophaga
		d	Orthoptera
		a	True Bugs
40	Order Siphunculata comprises of	b	Termites
48		С	Sucking Lice
		d	Fleas
		a	Araneae
		b	Xiphosura
49	Mites are classified in to order	c	Solifuga
		d	Acari
		a	Mayflies
		b	Termites
50	Following are the members of Class Insecta except	c	True bugs
		d	Fish lice
	}	a b	Piercing Sucking
51	Mouth parts of bugs are adapted for		Sucking
	near parts of ougo are adapted for	С	Both
		d	None of these
		a	Flea bite
52	Hard whitish swelling on bite is present in	b	Mosquito bite
32	Traid windsh swelling on one is present in	c	Bug bite
		d	None of these
		a	Opalescent &translucent
53	Unhatched hug aggs are	b	Oval &white
33	Unhatched bug eggs are	С	Opaque& white
			Oval& creamy
		a	70-80 eggs
		b	100-150 eggs
54	Female bug lay	c	150-200 eggs
			300-400 eggs
			300 TOO 0550

	T		1
	Adults bugs of family are larger	a	reduviidae
55		b	Cimicidae
33	radits bags of family are larger	c	Both
		d	None of these
		a	4
		b	8
56	How many nymphal stages are present in bugs	С	5
		d	7
			3
		a	
57	Bugs abdomen is divided into how many segments	b	5
		С	6
		d	8
		a	4
58	How many nain of vesticial wings is present in hyes	b	6
38	How many pair of vestigial wings is present in bugs	С	8
		d	2
		a	Spines
		b	Bristles
59	Bug abdomen is covered with		
		С	Grooves
		d	None of these
		a	Dorsoventraly compressed
60	Adult bugs are	b	Oval
00	Adult bugs are	c	Pear shape
		d	Dorsoventraly flattened
		a	Wings
		b	Antennae
61	"Ptera" means	c	Halter
			None of above these
		d	
		a	forelegs
62	Halters are the balancing organ in order Diptera are	b	hindlegs
02	formed by	c	forewings
		d	hindwings
		a	Large sized flies
	N. 1. C	b	Small sized flies
63	Members of nematocera are called as	С	medium to large sized flies
		d	Small to medium sized flies
		a	Ceratopogonida
	"Ditings midges" are the members in Nemeteeren	b	Simulidae
64	"Bitings midges" are the members in Nematoceran		
	family	С	Psychodidae
		d	Culicidae
		a	Bitings midges
65	Members of Psychodidae family in Nematocera are	b	sand flies
05	commonly known as	c	Black flies
		d	Mosquitoes
		a	Nematocera
		b	Brachycera
66	Arista is present in the antennae of		cyclorhapha
		С	
ļ		d	Mallophaga
		a	Nematocera
67	Notify one of following suborder which is odd with	b	Brachycera
0,	respect to other three	c	cyclorhapha
	1	d	Mallophaga
		a	Dioptic
		b	Holoptic
68	Eyes of black flies can be	c	Both a & b
		d	None of these
I		u	MOHE OF THESE

Similium may have following larval instars   b Upto 6			1	
Similum may have following larval instars   C   Upto 7		Similium may have following larval instars		
C   Cpto /	69		b	
Bluetongue is transmitted by   Bluetongue is transmitted by   Culicoides   Culicoides   Decimple   Culicoides   Decimple   Culicoides   Decimple   Culicoides   Decimple   Dec	0,			
Bluetongue is transmitted by   C   Culicoides			d	
C   Culicoides   d   Phiebotomus		Bluetongue is transmitted by	a	Culicidae
71 Scientific name of bedbug is  72 Regarding morphology of bugs all are true except  73 Regarding morphology of bugs all are true except  74 Life cycle of bugs are termed as  75 Condition that cause by bugs in poultry is  76 Choose the most appropriate statement  77 Which one is not the morphological part of bug  78 Infested premises by bugs can be fumigated by  79 Appropriate bitting time of bugs is  80 Curved shape penis present in male bug specie  80 Curved shape penis present in male bug specie  80 Curved shape penis present in male bug specie  81 Cimes hemipetrus  6 Compound eyes  6 Curved shape penis present in male bug specie  7 Scientific name of bedbug is  8 Cimes hectularius  6 Cimes hemipetrus  7 Scientific name of bedbug and also transmit them  7 Secondaria of the most appropriate statement  8 Permethrin spray  9 Appropriate bitting time of bugs is  8 Cimes hemipetrus  9 Curved shape penis present in male bug specie  1 Cimes hemipetrus  1 Cimes hemipetrus  1 Cimes hemipetrus  1 Cimes hemipetrus  2 Cimes hemipetrus  3 Cimes hemipetrus  4 Ciles  4 Cimes hemipetrus  5 Cimes hemipetrus  6 Cimes hemipetrus  7 None of the above  7 None of the above  8 Circes hemipetrus  8 Cimes he	70		b	simulium
Scientific name of bedbug is   Cimex hemipetrus	70		С	Culicoides
Scientific name of bedbug is   Cimex hemipetrus			d	Phlebotomus
Scientific name of bedbug is   Cimex hemipetrus				
Calptocimex bouted   Calptocimex bouted				
Regarding morphology of bugs all are true except  A Abdomen with 6 segments  A Mesospermaleage  D Organ of Ribaga  C Only a  d Both a & b  Incomplete metamorphosis  c Paurometabolism  A All of these  In firitation  D Allergy  C Swelling  A Anemia  B Bedbugs infestations are mostly recorded in dilapdated buildings and good hygienic measures  D Hepatitis B and 27 other pathogens are recorded in bedbugs and also transmit them  C Bedbugs not considered as a vector for transmitting of pathogens to humans  D Hepatitis B and 27 other pathogens are recorded in bedbugs and also transmit them  C Bedbugs cannot be controlled through insecticides  B Pronotum  D Paragenital sinus  C Mesonotum scutellum  D Paragenital sinus  Appropriate bitting time of bugs is  C Use of disinfectent  All of the above  a Rarely at night  D Mostly at day time  B Mostly at day time  C Bedbugs cannot be colored and a Rarely at night  D Mostly at day time  C Both a & B  C Mostly at day time  C Both a & B  C Mostly at day time  C Mostly at day time  C Both a & B  C Mostly at day time  C Both a & B  C Mostly at day time  C Mostly at d	71	Scientific name of bedbug is		
Regarding morphology of bugs all are true except  Responsible Mesospermaleage  Responsible Mesospermaleage  Responsible Re				
Regarding morphology of bugs all are true except   Compound eyes				
Comparison to the most appropriate statement   Comparison to the most appropriate statement				
The female bugs incision on abdomen is called   Abdomen with 6 segments	72	Regarding morphology of bugs all are true except		
The female bugs incision on abdomen is called   Digan of Ribaga				
The standard of the most appropriate statement   Section 1			_	
The state of the most appropriate statement   Condition that cause by bugs in poultry is   Condition that cau				
Constraint	73	In female bugs incision on abdomen is called	b	
Life cycle of bugs are termed as   Bed   Incomplete metamorphosis	, ,	in remaie bugs mersion on abdomen is caned	С	
Life cycle of bugs are termed as			d	Both a & b
Condition that cause by bugs in poultry is   Condition that cause by bugs and also transmit them			a	Hemimetabolous
Condition that cause by bugs in poultry is   Condition that cause by bugs and also transmit them	74	Life evale of huge on towned as	b	Incomplete metamorphosis
To Condition that cause by bugs in poultry is    Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is	/4	Life cycle of bugs are termed as	С	Paurometabolism
To Condition that cause by bugs in poultry is    Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is   Condition that cause by bugs in poultry is			d	All of these
Condition that cause by bugs in poultry is			_	
Choose the most appropriate statement  Choose the most ap		Condition that cause by bugs in poultry is		
The second statement    The se	75			
The content appropriate statement are corded in dilapidated buildings and good hygienic measures be Hepatitis B and 27 other pathogens are recorded in bedbugs and also transmit them  c Bedbugs not considered as a vector for transmitting of pathogens to humans debugs cannot be controlled through insecticides and Pronotum  b Paragenital sinus  c Mesonotum scutellum  d Claws  a Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Bedbugs and also transmit them  b Paragenital sinus  c Mesonotum scutellum  d Claws  a Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  Curved shape penis present in male bug specie  Females of mosquitoes lay single egg except that.  Females of mosquitoes lay single egg except that.  Choose the most appropriate bad 27 other pathogens are recorded in bedbugs and also transmit them  recorded in bedbugs and 27 other pathogens are recorded in bedbugs and also transmit them  recorded in bedbugs and also transmit them  a Pronotum  b Paragenital sinus  c Mesonotum scutellum  d Claws  a Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  Cimex hemipetrus  c None of these  d Both a & b  Anopheles  c Aedes				
The content of the most appropriate statement   Choose the most appropriate statemen			_	
Choose the most appropriate statement  Choose the path 27 other pathogens are recorded in bedbugs and also transmit them recorded in bedbugs and also transmit them them  Choose the most appropriate statement  Choose the most appropriate statement  Choose the most appropriate statement  Choose the most appropriate statement them them them them them them them the			a	
Choose the most appropriate statement  Debugs cannot be controlled through insecticides  Choose the most appropriate statement  Debugs cannot be controlled through insecticides  Choose the most appropriate statement them  Choose the most appropriate statement them  Choose the most appropriate statement them  Choose transmitting of pathogens to humans  Debugs cannot be controlled through insecticides  Choose the most considered as a vector for transmitting of pathogens to humans  Debugs cannot be controlled through insecticides  Choose the most considered as a vector for transmitting of pathogens to humans  Choose the most considered as a vector for transmitting of pathogens to humans  Choose the most considered as a vector for transmitting of pathogens to humans  A Pronotum  Debugs cannot be controlled through insecticides  Choose the most considered as a vector for transmitting of pathogens to humans  A Pronotum  Debugs cannot be controlled through insecticides  Choose the most controlled through insecticides  Choose the most controlled through insecticides  Choose the paragental sinus  Choose the most controlled through insectici				
Choose the most appropriate statement    Choose the most appropriate statement			1-	
them    Choose the most appropriate statement			В	
The second process of the morphological part of bug  Which one is not the morphological part of bug  Which one is not the morphological part of bug  Which one is not the morphological part of bug  Which one is not the morphological part of bug  The second process of the morphological part of bug  Which one is not the morphological part of bug  The second process of the morphological part of bug  The second process of the morphological part of bug  The second process of the morphological part of bug  The second process of the morphological part of bug  The second process of the second part of bug insecticides  The second process of the second part of bug insecticides  The second process of the second part of bug insecticides  The second part of bug insecticides  The paragenital sinus  The second part of bug insecticides  The paragenital sinus  The paragenital si	76	Choose the most appropriate statement		
transmitting of pathogens to humans d Bedbugs cannot be controlled through insecticides  a Pronotum b Paragenital sinus c Mesonotum scutellum d Claws d Claws a Permethrin spray b Wood smoke c Use of disinfectent d All of the above d All of the above a Rarely at night b Mostly at day time c Both a & b d None of the above a Cimex lectularius c Both a & b d None of the above d None of these d Both a & b d Bo				
Multiply and provided through insecticides   a Pronotum			С	
The standard premises by bugs can be fumigated by   Paragenital sinus   Company				
Which one is not the morphological part of bug  Which one is not the morphological part of bug  Begin a Pronotum  C Mesonotum scutellum  C Claws  a Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  C None of these  d Both a & b  a Culex  Appropriate of mosquitoes lay single egg except that.  Females of mosquitoes lay single egg except that.  C Aedes			d	
Which one is not the morphological part of bug    Comparison of the morphological part of bug				
Which one is not the morphological part of bug  C Mesonotum scutellum  d Claws  a Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  Curved shape penis present in male bug specie  81  Females of mosquitoes lay single egg except that.  Females of mosquitoes lay single egg except that.  C Mesonotum scutellum  d Claws  Permethrin spray  b Wood smoke  c Use of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex hemipetrus  c None of these  d Both a & b  a Culex  b Anopheles  c Aedes				
The state of mosquitoes lay single egg except that.  The state of premises by bugs can be fumigated by  The state of the s	77	Which one is not the morphological part of bug	b	
Infested premises by bugs can be fumigated by  By South State of the s	''	minen one is not the morphological part of oug		
Infested premises by bugs can be fumigated by   C   Use of disinfectent	<u></u>		d	Claws
Infested premises by bugs can be fumigated by   C   Use of disinfectent			a	Permethrin spray
Curved shape penis present in male bug specie  Curved shape penis present in male bug specie  Curved shape penis present in male bug specie  Emales of mosquitoes lay single egg except that.  Cuse of disinfectent  d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  a Culex  b Anopheles  c Aedes	7.0	T.C. a. I amond at 1 to 1 to 1	b	
d All of the above  a Rarely at night  b Mostly at day time  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  c None of these  d Both a & b  c Anopheles  c Aedes	/8	iniesiea premises by bugs can be fumigated by	С	Use of disinfectent
Appropriate bitting time of bugs is  Appropriate bitting time of bugs is  Both a & b  Curved shape penis present in male bug specie  Both a & b  Culex  Both a & b  Culex  Anopheles  Culex  Anopheles  Culex  Anopheles  Culex				
Appropriate bitting time of bugs is  b Mostly at day time c Both a & b d None of the above a Cimex lectularius b Cimex hemipetrus c None of these d Both a & b  a Culex Females of mosquitoes lay single egg except that.  b Mostly at day time c Both a & b d None of the above a Cimex hemipetrus c None of these d Both a & b a Culex b Anopheles c Aedes			_	
Appropriate bitting time of bugs is  c Both a & b  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  a Cimex hemipetrus  c None of these  d Both a & b  a Culex  b Anopheles  c Aedes				
d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  a Culex  Bernales of mosquitoes lay single egg except that.  d None of the above  a Cimex lectularius  b Cimex hemipetrus  c None of these  d Both a & b  a Culex  b Anopheles  c Aedes	79	Appropriate bitting time of bugs is		
80 Curved shape penis present in male bug specie  Curved shape penis penis present in male bug specie  A curved shape penis pen				
Curved shape penis present in male bug specie  b Cimex hemipetrus c None of these d Both a & b  a Culex b Anopheles c Aedes			_	
Curved snape pents present in male bug specie  c None of these  d Both a & b  a Culex  b Anopheles  c Aedes				
81 Females of mosquitoes lay single egg except that.  C None of these  d Both a & b  a Culex  b Anopheles  c Aedes	80	Curved shape penis present in male bug specie		
81 Females of mosquitoes lay single egg except that.    A		car rea shape penns present in male bug specie		
Females of mosquitoes lay single egg except that.  b Anopheles c Aedes			d	
81 Females of mosquitoes lay single egg except that.  c Aedes				
c Aedes	<b>Q</b> 1	Females of mosquitoes lay single egg except that.	b	
d Both b & c	01			
			d	Both b & c

		a	Destan
	The larva, of mosquitoes also known as, has a		Pectan
82	well-developed head and a distinct thorax and	b c	Comb
	abdomen.		Wriggler
		d	Both b & c
	Cyclorrhapha are small to medium sized flies with		Three
83	short, segmented antennae, the last of which often bears a feather-like attachment, the arista.	b	Four
0.5		c	Five
	often bears a feather-like attachment, the arista.	d	Six
		a	Head
	The larvae of flies have a poorly defined, and	b	Thorax
84	are mobile and worm-like, often being referred to as	c	Abdomen
	'maggots'.	d	Both a & b
		a	Buffalo fly
	does not levi eags but produces one lerve et e	b	Tsetse fly
85	does not lay eggs but produces one larva at a		·
	time when it is grown and ready to pupate.	c	House fly
		d	Bot fly
	Horse flies and are very striking in their	a	Tsetse flies
86	appearance. They are fairly large flies with aggressive	b	Buffalo flies
	biting habits.	С	House flies
	offing natites.	d	Deer flies
	The house fly is a developmental host for Habronema	a	Tsetse fly
	musae and Draschia megestoma, spirurid nematodes	b	Buffalo fly
87	the cause gastric and cutaneous forms of habronemiasis	c	House fly
	in horses.	d	Deer fly
	Upon completing larval development, the larva will	a	Cattle Grub
			Heel Fly
88	back out of the hole and drop to the ground where they will pupate (transform into an adult fly). Cattle Grub	<u></u> b с	·
00	(Heel Fly)		House fly
	(neer riy)		Both a & b
		d	
	Stable flies can also act as mechanical vectors of pathogens, such as	a	Trypanosoma evansi
89		b	Leishmania infantum
		С	Onchocerca gutturosa
		d	Both a & b
		a	Trypanosoma evansi
90	The following disease has been reported to be transmitted by sand flies:	b	Leishmania infantum
90		c	Onchocerca gutturosa
		d	Both a & b
		a	Myriapoda
		b	Crustacea
91	Ticks belong to which major class?	С	Arachnida
			Insecta
			Mites
	Members of Order Diplopoda are also known as:	a b	Centipedes
92		c	
	1 1		Millipedes None of those
			None of these
		a	Hemiptera
93	Following are orders of class Insecta except:	b	Diptera
		c d	Odonata
			Amphipoda
		a	Opiliones
04	Following are orders of class Crustacea except:	b	Mysidacea
94		С	Amphipoda
		d	Decapoda
		a	Insecta
		b	Crustacea
95	Shrimps belong to the class:	c	Arachnida
	r		
			Myriapoda

		0	Hamintara
	Mosquitoes belong to the order:	a b	Hemiptera Orthoptera
96		c b	Orthoptera
			Diptera
			Trichoptera
			Ticks
97	Order Acarina contains:	b	Mites
		С	Both
		d	None of these
		a	Apterygota
98	Lice are categorized in subclass as:	b	Exopterygota
20	Lice are categorized in subclass as.	c	Endopterygota
		d	None of these
		a	Insects
00	Continuedos anos	b	Arachnids
99	Centipedes are:	С	Crustaceans
		d	Myriapods
		a	Ticks
		b	Mites
100	Members of order Hemiptera are also called as:	c	Bugs
		d	Spiders
		a	Complete metamorphosis
		b	Incomplete metamorphosis
101	Orthoptera is an order of insects with		No metamorphosis
		d d	Both a and b
	Which one of the following includes in orthoptera	a	Fly
102		<u>b</u>	Tsetse fly
		d d	Grasshoppers
			none of these
	A	<u>a</u>	Orthoptera
103	Antennae have multiple joints and filiform type and are of variable length in	b	Lepidoptera
- 33		С	Dipteral
		d	None of these
		a	Lepidoptera
104	There are 2 suborders and 235 subfamilies in this order	b	Diptera
.∪-т	There are 2 suborders and 255 subtainines in this order	c	Orthoptera
		d	None of these
105	Ortho meaning straight and ptera meaning winged:	a	False
103	statement is	b	True
		a	Piercing type
100	Orthontara hava mouthnests	b	Sucking type
106	Orthoptera have mouthparts	c	Chewing type
			Both a and b
		a	Labrum
107	Which one of following is not a head and mouth part of orthoptera	b	Palpus
107		c	Mandible
		d	Salivary Ducts
		a	Maxillae
	In orthoptera sensory structure in insects for tasting, smelling, and touching are found on palps of	b	Labium
108		c	Mandible
		d	Both a and b
		a	Grasshoppers
	1	b	Beetles
109	Which one of following not includes in orthoptera		Bugs
		c d	cockroaches
		d	
		a	Labium
110	In orthoptera upper lip is called	b	Labrum
		С	Both a and b
		d	None of these

		a	Shorter than thorax
111	In sub-order Brachycera antennae are	b	Longer than thorax
111		c	Equal to thorax
		d	Absent
		a	Horse fly
112	All are classified into Brachycera except	b	Deer fly
112	Thi the classified into Bracing cold except	c	Sand fly
		d	Soldier fly
		a	Ceratopodonidae
113	which of the following following included in	b	Tabanidae
113	Brachycera	c	Psychodidae
		d	Hippoboscidae
		a	6
114	Abdomen of horse fly have	b	7
117	segments	c	8
		d	9
		a	Genus haematopota
115	Which of the genus is not included in family Tabanidae	b	Genus crysops
113	Which of the genus is not included in family Tabanidae	c	Genus pangonia
		d	Genus gastrophilus
		a	Stiffly forward
116	In horse fly maxillary palps	b	Stiffly backward
110	in noise ny maximary paips	c	Having one joint only
		d	Absent
		a	Horizontally
117	Larvae of Tabanidae having retractile head and the mandibles bite	b	Vertically
117		c	Forward
		d	Backword
		a	Genus haematopota
118	Proboscis are long, soft, hangs down in case	b	Genus crysops
110	of	c	Genus pangonia
		d	Genus gastrophilus
		a	Haematopota
119	Which one of genus has metallic color	b	Pangonia
119	eyes	С	Tabanus
		d	None of these
		a	Panagonia and Chrysops
120	Which one of the following genra have same proboscis	b	Heamotapota and Panagonia
120	anatomy	С	Tabnus and Heamotapota
		d	Chrysops and Tabnus

**PARA Key Section C: Entomology** 

No.	Answer								
1	Е	25	С	49	D	73	D	97	С
2	В	26	A	50	D	74	D	98	В
3	D	27	A	51	C	75	D	99	D
4	С	28	D	52	C	76	С	100	C
5	Е	29	D	53	C	77	D	101	В
6	С	30	A	54	C	78	A	102	C
7	D	31	С	55	A	79	D	103	A
8	A	32	С	56	C	80	D	104	C
9	A	33	D	57	D	81	A	105	В
10	D	34	A	58	D	82	C	106	C
11	A	35	В	59	В	83	A	107	D
12	A	36	C	60	D	84	A	108	D
13	D	37	C	61	A	85	В	109	C
14	C	38	В	62	D	86	D	110	В
15	A	39	D	63	В	87	C	111	A
16	A	40	C	64	C	88	D	112	C
17	C	41	C	65	A	89	A	113	В
18	C	42	D	66	В	90	В	114	В
19	C	43	D	67	C	91	C	115	D
20	В	44	D	68	C	92	C	116	A
21	A	45	A	69	A	93	D	117	В
22	В	46	D	70	C	94	A	118	В
23	A	47	В	71	A	95	В	119	D
24	A	48	C	72	D	96	c	120	C

# Pathology

# MCQs Section A: Clinical Pathology

a Decreased No. of RBCs, PCV and Hb. Conc. then healthy animals b Only high No. of reticulocytes count c Only high No. of reticulocytes count c Only high No. of reticulocytes count c Only high No. of Polychromatophilic count a Lead poisoning in animals doubt in a Lead poisoning in animals b Copper poisoning in animals c Mercury poisoning in animals c Mercury poisoning in animals d Hematuria b Phenothiazine toxicity c Both a & b d Non a Normocytic normochromic anemia d Normocytic normochromic anemia c Macrocytic hyperchromic anemia d Macrocytic hyperchromic anemia d Hypochromic anemia d Hypo	No.	Question	Choice	Answer
Animals suffering from anemia have  Animals suffering from anemia have copy in animals have been defected in animals.  Animals suffering in animals have copy in animals have copy in animals.  And Mylobdenium poisoning in animals.  And Marcrocytic poisoning in animals.  And Mylobdenium poisoning in animals.  And Marcrocytic poisoning in animals.  And Marcrocy	110.	Question		
Animals suffering from anemia have    Donly high No. of reticulocytes count confly decreased No. of RBCs then healthy animals.				I
Animals suffering from anemia have    C		Animals suffering from anomic have	h	
Bealthy animals	1			
d Only high No. of Polychromatophilic count  a Lead poisoning in animals b Copper poisoning in animals c Mercury poisoning in animals d Mylobdening poisoning in animals a Hematuria b Phenothazine toxicity c Both a & b d Non a Normocytic normochromic anemia b Microcytic normochromic anemia c Macrocytic hyperchromic anemia d Macrocytic hyperchromic anemia b Normochromic anemia c Microcytic anemia b Normochromic anemia d Macrocytic hyperchromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia c Microcytic anemia b Normochromic anemia d Hypochromic anemia b Normochromic anemia c Microcytic anemia d Hypochromic anemia b Normochromic anemia c Microcytic anemia d Hypochromic anemia b Normochromic anemia c Microcytic anemia d Hypochromic anemia b Normochromic anemia c Microcytic anemia d Henaturia b Normochromic anemia c Microcytic anemia b Normochromic anemia d Henaturia c Macrocytic hyperchromic anemia c Microcytic anemia d Henaturia b Normochromic anemia c Microcytic anemia d Henaturia b Normochromic anemia c Microcytic anemia d Henaturia b Normochromic anemia c Microcytic anemia d Dec. in RBCs II C Bone anemia d Dec. in RBCs II C Bone anemia d Dec. in RBCs II C Bone anemia d Dec. in TLC c Only dec. in plasma proteins d Increased bilitude anemia d Dec. in TLC c Only dec. in plasma proteins d Increased bilitude anemia d Dec. in TLC c Only dec. in plasma proteins d Increased exploration of RBCs a Hepatocullular demage b Bile duct obstruction. c Bone marrow depression d Excessive hemolysis d Diabetes mellitus b Milk fever c Hepatitis d Septecemi a Malgancy b Normochromic anemia d Macrocytic hyperchromicanem	1	Animals suffering from ancima nave		
Count     Count     Count     Count     Count     Count     Count     Count			d	Only high No. of Polychromatophilic
A			u	
Box   Copper poisoning in animals   Competency   Co			я	
C   Mercury poisoning in animals.				
Red colour urine is observed in  Red colour urine in tissue in  Red colour urine is observed in  Red colour urine in  Red colour urine is observed in  Red colour uri	2	High no. basophilic stippling bodies are seen in		
Red colour urine is observed in  Red colour in a Normochromic anemia  Narcocytic normochromic anemia  Red colour in ormochromic anemia  Red colou				
B			-	
C   Both a & b   d   Non				
Morphology of anemia in chronic infections	3	Red colour urine is observed in		
A Morphology of anemia in chronic infections    A morphology of anemia in chronic infections   B microcytic normochromic anemia				
Morphology of anemia in chronic infections			-	
Morphology of anemia in enronic infections				
Protein deficiency leads to  Reduced activity of bone marrow leads to  Reduced activity of bone marrow leads to  Reduced activity of bone marrow leads to  Increased bilirubin conc. in blood is seen in  Fatty casts are seen in urine of animals suffering from  Increased erytherocyte sedimentation rate is indicative of  Increased demand or consumption in tissues	4	Morphology of anemia in chronic infections		
Protein deficiency leads to   Bild duct obstruction.				
Protein deficiency leads to   B   Normochromic anemia   C   Microcytic anemia   d   Hyperchromic anemia   Hyperchromic anemia   d   Hyperchromic anemia   hyperchromic anemia   d   Hyperchromic anemia   hyperchromic anemia   d   Hyperchromic anemia   hy				
Protein deficiency leads to		Protein deficiency leads to		
d Hyperchromic anemia a Dec. in RBCs, TLC and thrombocytes b Only dec. in TLC c Only dec. in plasma proteins d Increased no. of RBCs a Hepatocullular demage b Bile duct obstruction. c Bone marrow depression d Excessive hemolysis a Diabetes mellitus b Milk fever c Hepatitis d Septecemi a Malignancy b Nephritis c Tuberculosis d All of above a Increased demand or consumption in tissues	5			
Reduced activity of bone marrow leads to  Reduced activity of bone marrow leads to  Below thrombocytes  b Only dec. in TLC  c Only dec. in plasma proteins d Increased no. of RBCs  a Hepatocullular demage b Bile duct obstruction. c Bone marrow depression d Excessive hemolysis a Diabetes mellitus b Milk fever c Hepatitis d Septecemi a Malignancy b Nephritis c Tuberculosis d All of above a Increased demand or consumption in tissues				
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6 Reduced activity of bone marrow leads to  b Only dec. in TLC c Only dec. in plasma proteins d Increased no. of RBCs a Hepatocullular demage b Bile duct obstruction. c Bone marrow depression d Excessive hemolysis a Diabetes mellitus b Milk fever c Hepatitis d Septecemi a Malignancy b Nephritis c Tuberculosis d All of above a Increased demand or consumption in tissues		Reduced activity of bone marrow leads to		The state of the s
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Tincreased bilirubin conc. in blood is seen in  Bile duct obstruction.  C Bone marrow depression  d Excessive hemolysis  a Diabetes mellitus  b Milk fever  C Hepatitis  d Septecemi  a Malignancy  b Nephritis  C Tuberculosis  d All of above  a Increased demand or consumption in tissues				
The following is seen in the local interested bilirubin conc. in blood is seen in   Bile duct obstruction.   C   Bone marrow depression   d   Excessive hemolysis   a   Diabetes mellitus   b   Milk fever   C   Hepatitis   d   Septecemi   a   Malignancy   b   Nephritis   C   Tuberculosis   d   All of above   a   Increased demand or consumption in tissues   Increased demand or consumption in tissues   C   Bone marrow depression   d   Excessive hemolysis   a   Diabetes mellitus   b   Milk fever   C   Hepatitis   d   Septecemi   a   Malignancy   b   Nephritis   C   Tuberculosis   d   All of above   C   All of above				
Fatty casts are seen in urine of animals suffering from  Fatty casts are seen in urine of animals suffering from  Fatty casts are seen in urine of animals suffering from  Increased erytherocyte sedimentation rate is indicative of  Increased erytherocyte sedimentation rate is indicative of  Increased demand or consumption in tissues		Increased bilirubin conc. in blood is seen in		
B Fatty casts are seen in urine of animals suffering from  Fatty casts are seen in urine of animals suffering from  Fatty casts are seen in urine of animals suffering from  B Milk fever  C Hepatitis  d Septecemi  a Malignancy  b Nephritis  C Tuberculosis  d All of above  a Increased demand or consumption in tissues	7			
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Fatty casts are seen in urine of animals suffering from  B Milk fever  C Hepatitis  d Septecemi  a Malignancy  b Nephritis  C Tuberculosis  d All of above  a Increased demand or consumption in tissues				·
8 Fatty casts are seen in urine of animals suffering from  C Hepatitis  d Septecemi  a Malignancy  b Nephritis  c Tuberculosis  d All of above  a Increased demand or consumption in tissues				
d Septecemi  a Malignancy  b Nephritis  c Tuberculosis  d All of above  a Increased demand or consumption in tissues	8	Fatty casts are seen in urine of animals suffering from		
9 Increased erytherocyte sedimentation rate is indicative of  Increased erytherocyte sedimentation rate is indicative of  C Tuberculosis  d All of above  a Increased demand or consumption in tissues				*
9 Increased erytherocyte sedimentation rate is indicative of    D			a	Malignancy
Tuberculosis  d All of above  a Increased demand or consumption in tissues			_	
d All of above a Increased demand or consumption in tissues	9	Increased erytherocyte sedimentation rate is indicative of		*
a Increased demand or consumption in tissues				
tissues				
				_
U   Decreased marrow production		Mechanisms of neutropenia include:	b	Decreased marrow production
	10		С	
circulating neutrophil pool to the				circulating neutrophil pool to the
marginal neutrophil pool				
d All of the above				All of the above
a Eosinophils.			a	Eosinophils.
11 The precursors of macrophages are:  b Basophils.	11	The producers of mearophages eres	b	Basophils.
The precursors of macrophages are:  c Monocytes	11	The precursors of macrophages are:	С	Monocytes
d Anisocytes			d	Anisocytes

		a	Lungs
	In case of endotoxic, septic or anaphylactic shock, retention		Spleen
12	of neutrophils in normal Reservoirs takes place usually in	b c	Liver
	capillaries of		All of the above
		d	Formaline
	Skin scrapings are kept for digestion of debris	a b	Ethanol
13		_	II.
		С	Potassium hydroxide
		d	Potassium chloride
		a	Variation in size of erytherocytes
14	Anisocytosis is	b	Seen in anemia
	1	С	Bone marrow depression anemia
		d	Variation in shape of erytherocytes
		a	Ordinary
15	Slides stained with immunoperoxidase techniques are	b	Flourescent
13	visualized in microscope	С	Dark Field
		d	Phase contrast
		a	Inferior to BSP test in detection of
			liver deamage.
		b	Is a lipid metaboloism test
16	Galactose tolerance test is	c	Used for detection of liver damage
		d	Used for detection of pancreas
		u	demage
		a	Normocytic normochromic
		b	Normocytic hypochromic
17	Type of anemia in CIN	-	Microcytic normochromic
		c d	
			Macrocytic Normochromic
		a	Infection, leukemia and hypoplasia of
	M/E ratio is increased in		erytheroroid cells.
18		b	Polycythemia.
		c d	Hyperplasia of erytheroroid cells.
			All above
		a	Hyperplasia of erytheroid cells
19	M/E ratio decrease in	b	Hypoplasia of erytheroid cells
19		С	Hyperplasia of myeloid cells
		d	Hypolpasia of myeloid cells
		a	Glucose
20	In morphine and chloral hydrate treatment the urine will be	b	Blood
20	positive for	С	Bilirubin
	positive for	d	Ketone bodies
		a	Fever
		b	Glomerlonephritis
21	Hyaline casts will be seen in animals suffering from	c	CIN
		d	Shock
		a	Yellow/ gray in colour & highly
22	Waxy casts are	1	refractile
22		b	Orange in colour & highly refractile.
		С	Pink in colour & highly refractile
		d	Yellow in colour
		a	Unconjugated biliribin in serum
23	Indirect Van Den Berg test is done to detect	b	Conjugated biliribin in erum.
23		c	Protein in serum
		d	Biliverdin im serum
		a	Inflammation and chronic nephritis.
<i>a :</i>		b	In hepatitis.
24	Fibrinogen is increased in	c	In CIN
		d	In diabetes mellitus
		u	in diabetes memus

		9	Only in liver damage
		a b	In kidney damage
25	SGPT is increased	С	In liver and kidney damage
			In cardiac muscle demage
		d a	Liver, kidney and heart damage
			Skeletal muscle damage.
26	Lactic dehydrogenase is increased in	b	Liver damage
		c d	
		-	Heart demage Erythropoietin stimulates RBCs
		a	production
		b	Erythropoietin stimulates TLC
		U	production
27	Which of the following is incorrect?		Erythropoietin produced from
		С	* * *
		d	hepatocytes Erythropoietin is produced by
		a	nephrons
			Changes in the rates of marrow
		a	production and release
	Which of the following one offert the newtonabil count in	b	
28	Which of the following can affect the neutrophil count in	D	Exchange between marginal and
	peripheral blood?	С	circulating neutrophil pool Tissue demand
			Corticosteroids
		a	Epinephrine release
29	Causes of neutrophilia include all of the following except:	b	Glucorticoid release
	, in the state of	c	Inflammation
		d	Hemorrhage
		a	Serum phosphate level is decreased
		b	Serum creatinine is more than 2mg
30	In chronic renal failure.		%.
		С	Pulmonary edema is secondary to
		1	fluid overload.
		d	Serum phosphate level is increased
		a	Erytherocytes with spine like
			projections
31	Acanthocytes are	b	Seen in autoimmune hemolytic
	Acanthocytes are		anemia
		С	Seen in defective erytheropoisis
		d	Seen over dose of EDTA
		a	Diabetes mellitus and acute
	Lipemic plasma is observed in	1	pancreatitis
32		b	Bone marrow depression and
			dehydration
		С	Liver diseases
		d	Fever
		a	Only in viral infection
33	Decreased leukocyte count is observed in:	b	In viral and early bacterial infection.
		С	Bone marrow depression
		d	Dehydration
		a	Increase in the hyper mature
			neutophils in circulation.
	Shift to the left means.	b	Increase in the immature neutrophills
34			in circulation
		c	Decrease in hyper segmented
			neutrophils in the circulation
		d	Increase in myelocytes in circulation

		a	Increased hyper segmented neutrophils in circulation.	
35		b	Increase in immature neutrophils in circulation.	
33	Shift to right means.	С	Decrease in hyper segmented neutrophils in circulation.	
		d	Increase in meta myelocytes in circulation	
	Chronic myeloproliferative disorders include the following:	a	Chronic myeloid leukemia.	
36		b	Polycythemia Vera.	
30		С	Primary myelodysplastic syndrome	
			Absolute polycytemia	
			Pyelonephritis	
37	Number of pus cell increase in urine due to	b	Pasteurelloisis	
37		c	Tuberculosis	
		d	Brucellosis	
	Myoglobin in urine is detected in	a	Strangles	
38		b	Glanders	
36		С	Azoturia	
		d	Equine infectious anemia	

**Keys MCQs Section A: Clinical Pathology** 

No.	Answer	No.	Answer
1	A	21	A
2	A	22	A
3	С	23	A
4	A	24	A
5	A	25	A
6	A	26	A
7	A,D	27	В
8	A	28	A,B,C,D
9	D	29	В
10	D	30	В
11	С	31	A
12	D	32	A
13	С	33	В
14	A	34	В
15	A	35	A
16	A	36	С
17	A	37	A
18	A	38	С
19	A,C		
20	A		

# MCQs Section B: Systemic Pathology

No.	Question	Choice	Answer
		a	are important cells in bacterial
	Polymorphonuclear neutrophil granulocytes:		diseases.
		b	play a role in inflammation by
1			releasing histamine
		С	Are important cells in parasitic
			diseases.
		d	None of above
	An old bitch has a malignant lymphoma involving lymph	a	Coagulative necrosis
	nodes in the para-aortic region. Bitch is treated with a	b	Mitochondrial poisoning
	chemotherapeutic agent which results in the loss of	С	Apoptosis
2	individual neoplastic cells through fragmentation of	d	all of above
2	individual cell nuclei and cytoplasm. Over several weeks,		
	the size of the lymphoma decreases, as seen on an		
	abdominal CT scan. By which of the following mechanisms		
	has her neoplasm primarily responded to therapy:		
		a	cerebral infarction from middle
			cerebral artery thrombosis
	Which of the following would typically result in liquifactive necrosis?	b	liberation of pancreatic enzymes into
3			peritoneum due to acute pancreatitis
		С	myocardial infarction from coronary
			thrombosis
		d	all of above
		a	cell surface markers for lymphocyte
	Frozen section evaluation of a lymph node biopsy from the		phenotyping
4	neck of an old dog shows granulomatous inflammation with large areas of necrosis. Which of the following would be most important to do?	b	chromosomal analysis by
4			karyotyping
		С	cultures for acid fast bacilli and fungi
		d	None of above
		a	she does not now have and never has
	A buffalo with immunodeficiency state presents with		had tuberculosis
_	weight loss and cough. Chest x-ray shows pulmonary	b	she does not now have tuberculosis,
5	infiltrates. A tuberculin skin test shows no reaction. Which of the following interpretations is most correct?		but may have in the past
		С	she may or may not have tuberculosis
		d	none of above
		a	A extracellular deposits of altered
			protein in a Beta-pleated sheet pattern
6	Amyloid consists of	b	extracellular accumulations of
6	Amyloid consists of		damaged collagen fibrils
		С	denatured proteins
<u> </u>		d	all of above
		a	decreased plasma oncotic pressure
	Each of the following may contaile to formation of	b	increased intravascular hydrostatic
7	Each of the following may contribute to formation of edema EXCEPT:		pressure
		С	increased serum albumin
		d	all of above
		a	glucuronyl transferase activity
0	The animated bilimbin in daniant of a factorial Const	b	toxic liver injury
8	Unconjugated bilirubin is derived principally from:	С	intravascular haemolysis
		d	bile duct obstruction
		a	Unconjugated bilirubin
	Markedly increased concentration responsible for	b	Conjugated bilirubin
9	kernicterus in hemolytic disease of the newborn.	c	Hemosiderin
		d	none of above
			01 400 10

		-	Lymphocyta accumulation
	The main feature of a healing wound is:	a	Lymphocyte accumulation
10		<u></u> в	Fibrin deposition
			Granulation tissue formation
<u> </u>		d	tissue destruction
		a	Dextroposition of aorta and right
	In addition to pulmonary stenosis and ventricular septal		ventricular hypertrophy
		b	Dextroposition of aorta and left
11	defect, Tetralogy of Fallot includes:		ventricular hypertrophy
	, 33	c	Right ventricular hypertrophy and
			left atrial dilatation
<u> </u>		d	all of above
		a	Anemia
12	Which of the following is most likely to result in cyanosis?	b	Polycythemia
1	in most likely to result in cyanosis:	c	Left to right cardiac shunt
		d	bilirubinaemia
		a	dependent edema
13	Clinical manifestations of right heart failure include each of	b	Ascites
13	the following EXCEPT:	c	Pulmonary edema
		d	nutmeg liver
		a	Hepatomegaly
14	Left-sided heart failure is characterized by:	b	Dyspnea (shortness of breath)
1 4		c	Varices
		d	nutmeg liver
		a	Hypovolemic
15	The edema of nephrotic syndrome is best classified as	b	Obstructive
13		c	Oncotic
		d	none of above
	Which one of the following is may be a malignant neoplasm?	a	Seminoma
16		b	Trichoepithelioma
10		c	Chondroma
		d	Hepatoma
		a	Cellular sequences that are not
			oncogenes themselves, but are strong
	Proto-oncogenes are:		promoter sequences that flank the
			true oncogene
17		b	Cellular copies of oncogenes that
1 /			were first found in retroviruses
		С	DNA viral sequences that are known
			to infect human cells and have been
			implicated in neoplasia
		d	none of above
		a	Presence of necrosis
18	Which of the following findings is most useful for the	b	Presence of abnormal mitoses
10	staging of a tumor?	С	Presence of metastases
		d	presence of apoptosis
		a	Transitional cell epitheliomas
19	Benign tumors arising from the salivary gland epithelium	b	Adenomas
19	are called:	c	Fibromas
		d	adenocarcinoma
		a	Presence of tumor cells in the
			vascular spaces
20	Which of the following finding is most important for the	b	Level of invasion
_ ∠∪	grading of tumors?	c	Microscopic pleomorphism of nuclei
			and the number of mitoses
		d	degree of metastasis

		9	Kinins
	Which of the following activates Hageman factor in blood clotting?	a b	Negatively charged surfaces
21		c	Complement C5a
	clouing:		positively charged collagen
			Plasma cells
			Macrophages
22	Epithelioid cells within granulomas are derived from which	b c	i v
	of the following?		Lymphocytes
		d	Eosinophils Laukstrianas (SPS)
	Dielogiaally active metabalitas of an 1,11 all 1, 1, 1	a	Leukotrienes (SRS)
23	Biologically active metabolites of arachidonic acid include	b	Thyromboxane A2
	all of the following EXCEPT:	С	Complement Antibodies
		d	
	Description of the form of the state of the	a	Hageman factor
24	Bacterial opsonization is mediated by which one of the	b	Prostaglandin
	following?	C	Antibodies
		d	Tumor Necrosis Factor
		a	Polymorphonuclear leukocytes
25	Predominant cell types in typical chronic inflammatory	b	Macrophages
	reactions include all of the following EXCEPT:	c	T helper lymphocytes
		d	Epitheloid cells
		a	Allergic dermatitis
26	Neutrophilia is most frequently seen in association with	b	Fungal esophagitis
	which of the following?	С	Bacterial pneumonia
		d	Viral encephalitis
		a	Lymphocytes
27	Chemotactic factors are produced by:	b	Monocytes
		c	Endothelial cells
		d	All of the above
	Which of the following is diagnostic of pyknosis?	a	Enlargement of the nucleoli
28		b	Condensed nuclear chromatin
20		c d	Dilated rough endoplasmic reticulum
			Disappearance of nucleus
		a	Rabies
29	Bats may act as a reservoir for human	b	Tuberculosis
		c	Malaria
		d	none of above
		a	stool leukocytes
30	Rotavirus infections can cause which clinical entity?	b	Exanthema
30		c	watery, non-bloody diarrhea
		d	none of above
		a	a small nodule of granulation tissue
		b	a tumor composed of granulocytes
31	A granuloma is	c	composed primarily of epithelioid
			histiocytes and lymphocytes
		d	none of above
		a	an emia
22	Severe babesiosis in dogs can result in which of the	b	hypoalbuminemia
32	following:	c	all of the above
		d	none of above
		a	anemic hypoxia
		b	overwhelming inflammatory
33	Tissue damage in babesiosis occurs due to:		response
		с	two of the above
		d	none of the above
		a	Bovine viral diarrhoea
		b	Infectious bovine rhinotracheitis
34	Bovine herpes virus 1 causes disease in bovines	c	Rinderpest,
	•		Malignant catarrhal fever
			1.14116114111 Cataliliai 10 voi

			Ethain and	
		a	Fibrinous	
35	In traumatic pericarditis, one of the following type of	b	purulent,	
	inflammation occur	С	fibrinopurulent,	
		d	Catarrhal	
		a	FMD,	
36	Bilateral corneal opacity is seen in	b	Rinderpest,	
30		c	Bovine viral diarrhoea	
		d	Malignant catarrhal fever	
	Heamorrhagia contiguamia in huffele in Asia is caused by	a	B2 serotype	
27		b	E2 serotype	
37	Haemorrhagic septicaemia in buffalo in Asia is caused by	С	A2 serotype	
		d	all of above	
		a	Rabies	
	Nibbling sign of disease in goats is characteristic for	b	enterotoxaemia	
38	disease	c	Scrapie	
	discuse	d	none of above	
			Tuberculosis	
	Subcutaneous edema is usually present in the	a		
39	submandibular region and neck, sometimes extending to the	b	Haemorrhagic Septicaemia	
	brisket in buffaloes at the time of postmortem in	C	Infectious bovine Rhinotracheitis	
	•	d	Babesiosis	
	Fluid sounds on auscultation of lungs, with sweetish fetid	a	Brochopneumonia	
40	breath and reddish or green nasal discharge is characteristic	b	Aspiration pneumonia	
10	of type of pneumonia	c	Chlamydial pneumonia	
	or type of pheumoma	d	None of the above	
	Predisposing factors for the development of keloid scars include:	a	secondary wound closure	
4.1		b	wound infection	
41		С	steroid therapy	
		d	None of the above	
		a	Staphylococcus aureus is the most	
			common organism to infect the	
			surgical wound	
		b	MRSA wound infection is usually the	
		Ü	result of wound contamination by	
42	The following statements are true of wound infections:		hospital staff	
		c	anaerobic organisms exert their lethal	
		C	effects by producing endo- and	
			exotoxins	
		d	all of the above	
		a	when the wound does not break apart	
		b	when the wound edges are brought	
43	Wound healing by secondary intention takes place:		together	
		c	much more slowly than healing by	
			first intention	
		d	In surgically incised wounds	
		a	causes gas gangrene	
44	Clostridium tetani:	b	produces an exotoxin	
	Closardini Cum.	c	is non-motile	
		d	causes pulpy kidney disease	
		a	are distinguished from hypertrophic	
			scars by their extent.	
		b	are caused by the excess deposition	
4.5	W 1 1 1		of fibrin in the wound	
45	Keloid scars:	С	may be prevented by pressure	
		-	dressing	
	-	d	does not re-occur after surgical	
		•	removal	
			101110 1411	

		0	it occurs in the retinal artery
		a b	·
		b	foamy macrophages are seen in type I
16	Tile Cille in an in the death and in the		plaque
46	The following are true about atherosclerosis:	С	proliferation of smooth muscle cells
			in the intima is typical
		d	no deposition of lipid occur in wall of
			artery
		a	the area of infarct tends to be wedge-
	The following are true about cerebral infarction:		shaped
		b	it can result from thrombosis of the
47			external carotid artery disease
		c	coagulative necrosis occurs in the
			brain tissue
		d	none of the above
		a	Coagulative necrosis
40	The following conditions can give rise to metastatic	b	Sarcoidosis
48	calcification:	С	Pulmonary Tuberculosis
		d	Liquifactive necrosis
		a	Platelets
		b	Ferritin
49	In the presence of inflammation, the following are raised:	c	Caeruloplasmin
		d	all of Above
		a	Complement 5a
	One of these do not cause increase in permeability of vascular tissue:	b	Interleukin-1
50			Adrenaline
		C	
		d	All of the above
		a	Affecting the Upper Lid More
~ 1	The followings are true about basal cell carcinoma:	1	Commonly Than the Lower Lids
51		b	Palisading of the Peripheral Cells
		c	Does Not Invade the Bone
		d	All of the above
		a	Gangrene Refers to Tissue Necrosis
			with Or Without Infection
		b	Acute Inflammation Usually Occurs
52	One of these is wrong:		Around Necrotic Tissues
	one of these is mong.	c	Apoptosis Does Not Usually Cause
			Inflammation
		d	Autolytic Changes in the Nucleus
			Are Pathognomonic of Necrosis
		a	the Main Stimulus for Hypertrophy is
			Hormonal
		b	in Metaplasia, There is A Change of
			A Type of Differentiated Cell to A
53	The following are true with regard to cell growth:		Type of Undifferentiated Cell
		c	Achondroplasia Does Not Affect
			Membranous Bone
		d	Metaplasia and dysplasia are similar
			in most extent
54		a	it is A Commoner Malignant Skin
			Tumour Than Basal Cell Carcinoma
	The following are true about squamous cell carcinoma:	b	it Only Occurs in the Skin
	The following are true about squamous cen caremonia:	c	Metastasis is Usually to the Regional
			Lymph Nodes
		d	Most commonly occur in bones
		a	it Arises in the Dermis
		b	it is Firmly Adherent to the Skin
55	Features of a sebaceous cyst include:	С	it Contains Mucopolysaccharides.
		d	All of the above
		4	1111 01 1110 1100 10

			A 1 T 3.5
		a	A-melanotic Type is More
			Aggressive Than Pigmented Type
56	One of the following is true about malignant melanoma:	b	Staging is According to the Size of
	one of the following is true acous manginant meranicinal		the Tumour
		С	it is Found Exclusively in the Skin
		d	All of the above
		a	Lysozyme
57	After phagocytosis by neutrophils, micro-organisms are	b	Lymphokines
37	killed by:	c	Complement System
		d	Antibodies
		a	Occurs 24 Hours After the Initial
			Stimulus
<b>50</b>		b	Causes Eosinophilia
58	One of these about Anaphylaxis is false:	С	Causes Degranulation of Basophils
			and Mast Cells
		d	All of the above
		a	Congo Red
		b	Anilin blue
59	Special stain for Amyloid is:	c	Prussian Blue
		d	Haemosiderin
		a	Thromboxane -Leukocyte Activation
		b	Prostaglandin-2 - Vasodilatation
60	The following are true about chemicals involved in allergic reaction:	c	Platelet-activating Factor - Leukocyte
00		C	Activation
		d	All of the above
			is A Feature of Wound Healing
	+	a b	Contains Fibroblasts
61	One of these if false about Granulation tissue:		
		C	Contains Thin-walled Capillaries
		d	Often Contains Granuloma
		a	Air
62	Constituents of emboli may include:	b	Amnioic Fluid
		С	Tumour
		d	All of above
		a	Bradykinin
63	The following substances increase the capillary	b	Histamine
0.5	permeabilityin acute inflammation except:	С	Angiotensin
		d	Complement proteins
		a	is Mediated by Complement
			Components.
64	Opsonization:	b	Enhances Phagocytosis
04	Opsomzation.	c	Involves Mainly the Fc Protion of the
			Immunoglobulins
		d	All of Above
		a	Macrophages
65	The following promotes wound beating account:	b	Myofibroblast
65	The following promotes wound healing except:	С	Platelets
		d	apocrine Cells
		a	Mitotic Index
		b	Necrosis
66	The following are used in grading a tumour except:	c	Calcification
		d	Atrophy
		a	is Produced by T Lymphocytes
		b	is Produced by Macrophages
67	TNFa (tumour necrosis factor alpha)		Causes Hypercoagulability
07	TNFa (tumour necrosis factor alpha):	c d	Does not cause necrosis of tumor
		u	cells
			CCIIS

			0 1 0 1 1
		a	Cyclic Guanosine Monophosphate
		1_	(Cgmp)
68	Intracellular messengers include all except:	<u>b</u>	Inositol Triphosphate (Ip3)
		С	Cyclic Adenosine Monophosphate
	}	d	(Camp) GABA
		a	it is Increased by Activation of A1-
	-	b	adrenoreceptors it is Produced by the Action of
69	The following are true about inositol triphophate (IP3):	b	Phospholipase C, A Membrane
09	The following are true about mositor triphophiate (173).		Bound Enzyme
		c	All of Above
		d	None of above
		a	Caseous Necrosis is Only Seen in
		а	Primary Lesions
		b	Langhans Cell Presence is A Must
70	The following statements about tuberculosis are true:	U	for Histological Diagnosis.
,0	The following statements about tuberculosis are true:	c	Viable Bacteria May Be Found in
		•	Calcified Lesions.
		d	Occur Only in Lung Tissue
		a	cardiac muscle
		b	renal tubular cells
71	Which of the following is LEAST likely to regenerate?	c	hepatocytes
		d	fibroblasts
		a	purulent exudate
	The newly formed, highly vascularized, connective tissue with a component of acute inflammatory exudation is known as	b	granulation tissue
72		c	Scar
		d	Granuloma
		a	well-apposed skin edges
	Healing by first intention is characterized by each of the	b	epithelial proliferation
73	following EXCEPT	c	abundant granulation tissue
	Ionowing EXCEFT	d	a few inflammatory cells
	A biopsy is performed on a dog with a mass lesion that	a	Pleomorphism
	proves to be a neoplasm. Of the following histopathologic	b	Invasion
74	findings, the one that best indicates that a neoplasm is	c	Atypia
	malignant is:	d	Increased nuclear/cytoplasmic ratio
	5	a	elimination of epithilial cells from the
		u	GIT
		b	destruction of hepatocytes in chronic
		J	hepatitis
75	Each of the following is an example of apoptosis except	c	deletion of autoreactive T cells from
		-	thymus
		d	stroke caused by thrombosis of
		-	middle cerebral artery
		a	switch to anaerobic glycolysis
7.	Which of the following sequelae of ischemia would be	b	swelling of endoplasmic reticulum
76	considered an irreversible cellular injury?	c	rupture of lysosomes
		d	cellular acidosis
		a	herpes virus
	X71.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	b	pox virus
77	Which virus is involved in development of feline sarcoids:	c	Papilloma virus
		d	Leukaemia virus
		a	B Catenin
	Canine colorectal tumors show dysregulation in which of	b	E Cadherin
78	the following:	c	p53
		d	All Ov Above

		a	Fibroma
79	Thick hyalinized collagen fibers characterize which of the fiboadenexal dysplasia following canine tumors:  b fiboadenexal dysplasia c Keloidal fibroma	fiboadenexal dysplasia	
19		С	Keloidal fibroma
		d	All Of Above
		a	Reticular-endothelial cells
80		b	B lymphocytes
80	The origin of histiocytic sarcomas are most likely:	c	Keloidal fibroma All Of Above Reticular-endothelial cells
		d	Neutrophils

**Keys MCQs Section B: Systemic Pathology** 

No.	Answer	No.	Answer	No.	Answer	No.	Answer
1	A	26	С	51	В	76	С
2	С	27	D	52	A	77	С
3	A	28	В	53	C	78	D
4	С	29	A	54	С	79	С
5	С	30	С	55	A	80	С
6	A	31	С	56	A		
7	С	32	С	57	A		
8	С	33	С	58	A		
9	A	34	В	59	A		
10	С	35	С	60	В		
11	A	36	D	61	D		
12	С	37	A	62	D		
13	С	38	С	63	С		
14	С	39	В	64	D		
15	С	40	В	65	D		
16	A	41	В	66	С		
17	В	42	D	67	В		
18	С	43	С	68	D		
19	В	44	A	69	C		
20	С	45	A	70	C		
21	В	46	С	71	A		
22	В	47	A	72	A		
23	С	48	В	73	С		
24	С	49	D	74	В		
25	A	50	С	75	D		

## MCQs Section C: Poultry Pathology

No.	Question	Choice	Answer
		a	Birnaviridae
	Infectious Bursal Disease is caused by the virus of	b	Orthomyxoviridae
1		С	Paramyxoviridae
		d	Circoviriade
		a	Chicken
		b	Quails
2	Gumboro disease is a clinical disease of	С	Turkeys
		d	Pheasants
		a	Fowl typhoid
		b	CIA
3	Immunosuppression is a characteristic feature of	С	IBD
		d	Both B&C
	Hydropericardiun syndrome in broiler chicks usually	a	1 <sup>st</sup> week of age
4	appears at	b	4 <sup>th</sup> month of age
-	appens at	c	3-4 <sup>th</sup> week of age
		a	Enteritis with swollen liver
		b	twisted legs with fluid in
			hydropericardium
5	Hydropericardiun syndrome in broiler chicks results in	С	Swollen liver with fluid in pericardial
			sac
		d	Nephritis and Tracheitis
		a	less than 24 hours
		b	one week
6	Incubation period of infectious bronchitis is	С	3 days
		d	3 months
		a	Acute disease
		b	Chronic Disease
7	In young Chicks, Infectious bronchitis appears as an	c	Subacute disease
		d	None of above
		a	Turkeys
	Hosts for IB virus include	b	Pigeons
8	Tiosis for 1D virus include	c	Chicken
		d	All of the above
		a	tracheal epithelial cells
	Laryngotracheitis results in intracytplasmic inclusion	b	endothelial cells of lungs
9	bodies in	c	Tubular epithelial cells of kidney
	bodies in	d	Intestinal cells
		a	all ages
	Newcastle disease virus infects the birds of	b	young chicks
10	The weaptie disease virus lineets the birds of	c	Adult birds
		d	Both B&C
		a	Mesogenic strains
	NDV strains employed as live vaccine to protect poultry	b	Velogenic strains
11	include	c	Lentogenic strains
		d	All above
		a	6 segments
		b	4 segments
12	Avian Influenza virus is a RNA virus having	c	8 segments
		d	Both A and B
			Argas persicus
		a b	Borrelia anserine
13	Spirochetosis is caused by		Candida albicans
	•	c d	
		u	Aspergillus fumigates

			Insects
	Most common reservoir of Avian Influenza virus is	a	
14		b	Mammals
		С	Water fowl
		d	Swine
		a	Should not be used for production of
			chicks
1.5	Marrian I and a self-self	b	should be treated before hatching
15	Mycoplasma gallisepticum infected breeder flock		their eggs
		С	May be used for production of chicks
		d	Above all
		a	Chicken
		b	Turkeys
16	Renal Coccidiosis is very common in	С	Geese
		d	Pigeons
		a	Vertically
17	Mycoplasma synoviae is transmitted	b	Horizontally
	y	С	does not spread
		d	Both A &B
		a	Oxytetracycline
18	Round worms in the chicken gut can be successfully removed by administration of	b	Lincomycin
10		С	Levamisole
		d	Furazolidone
		a	liver damage
	Copper sulfate toxicity in chicken results in	b	muscular degeneration
19		c	nervous derangement
		d	None of the above
		-	Urate deposits in kidneys
	Excess dietary Calcium levels result in	a	
20		b	liver damage
		С	cardiac dilatation
		d	None of the above
		a	Pericarditis & Perihapatitis
21	Characteristic lesion in <i>E.Coli</i> infection is	b	Hemorrhagic enteritis
		c	Swollen and edematous bursa
		a	Intestine
22	I. C. ili il	b	Proventriculus
22	In Coccidiosis hemorrhages occur in	С	Heart
		d	Muscles
		a	100° F
	During 1st week of brooding period of broilers temperature	b	120° F
23	of brooding room should be	c	90° F
	of brooding room should be	d	80° F
-			Calcium
		a	
24	Heat stress can be partially alleviated by administering	b	high level of Phosphorus
		С	Vitamin C
		d	above all
		a	14 days
25	In Ovo vaccination is performated in hatchery at the age of	b	16 days
23	in 0 vaccination is performace in nateliery at the age of	С	18 days
		d	20 days
		a	Yes
0.5	Birds suffering from Lymphoid leukosis shed virus in their	b	No
26		c	May or may not shed
	eggs	d	None of the above
			Aflatoxin G1
	Among all four aflatowing (B1 B2 C1 and C2) the	a b	
27	Among all four aflatoxins (B1, B2, G1 and G2) the most potent toxin is		Aflatoxin G2
		С	Aflatoxin B1
		d	Aflatoxin B2

		a	EDS infection
	Thin shelled deformed eggs with thin albumin are indicative of	b	Infectious bronchitis
28		c	Pullorum disease
	maleutive of	d	ILT
		a	Infectious bronchitis
	Infectious agent known to induce hemorrhagic tracheitis in	b	Fowl cholera
29	bird is	c	infectious laryngotracheitis
		d	Mycoplasma gallisepticum
		a	Facial cyanosis and swelling of
			wattles
	Lesions in birds suffering from Fowl Cholera include	b	Feather ruffled and increased activity
30		c	Soft shelled eggs and respiratory
	č		problem
		d	Swelling of wattles and subnormal
			body temperature
		a	Middle portion of intestinal tract
21		b	Upper respiratory tract
31	Infectious Coryza is a disease of	С	Lower Respiratory tract
		d	Air sacs
		a	Sulfa drugs
22	Mycoplasma can be eliminated from the flock following	b	tylosine tartrate
32	treatment with	С	Lincomycin
		d	None of the above
		a	Corynaebacterium renale
22	Necrotic enteritis is caused by	b	Clostridium perfringens type D and B
33		С	Clostridium perfringens type A and C
		d	None of the above
		a	Mycoplasma gallisepticum infection
34	Airsacculitis in young chicks is suggestive of	b	Salmonella gallinarum infection
34		c	Fowl cholera
		d	Chicken Infectious Anemia
		a	Swollen kidneys
35	What are finding in birds suffering from sulfonamide	b	ruffled feathers
33	toxicity	С	pneumonia
		d	Thymic Atrophy
		a	protozoal disease
36	Coccidiosis is a	b	bacterial disease
30	Coccidiosis is a	c	viral disease
		d	Both A&B
		a	vertically transmitted disease
37	Coccidiosis is a	b	horizontally transmitted disease
3,	SOUTHER TO W	С	None of any one
		d	Both A&B
		a	early chick mortality
38	Staphylococcus aureus is responsible for	b	Necrotic enteritis
	Suprojection will care to responsible for	С	respiratory distress
		d	Enteric disease
		a	Bacteria
39	Causative agent of Laryngotracheitis is a	b	Virus
		С	Fungus
		d	Protozoa
		a	Chicks
40	Laryngotracheitis is a disease of	b	Growing and adult chicken
	, 6	С	Both of the above
		d	Laying Birds

Which of the following diseases spread rapidly in a flock?   C   Mycophama gallisepticum infection			0	Laryngotracheitis	
42 In laying hens IB virus infection results in  43 Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for  44 Newcastle disease virus infects the birds of d Both A&B  45 Velogenic strains of NDV can cause  46 Nervous signs are a prominent feature of ND virus infection caused by  47 Gross lesions in velogenic ND infection in chicken include  48 NDV strains employed as live vaccine to protect poultry include  49 ND virus agglutinates  40 ND virus agglutinates  41 ND virus agglutinates  42 Which of the Eimeria spp. is poor in cyst production  43					
A	41	Which of the following diseases spread rapidly in a flock?	_		
Thick egg albumin					
In laying hens IB virus infection results in   C   Egg albumin   C   Egg albumin and yolk mixed					
Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for					
Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for  Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for  August a lall ages  Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for  Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks be 2.4 months  August a lall ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus infection all all ages  Breeding hens infected with field IBD virus and all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Breeding hens infected with field IBD virus all all ages  Brounds all ages  Brounds all all all all all all all all all al	42	In laying hens IB virus infection results in	b		
Breeding hens infected with field IBD virus transfer maternal antibodies to their chicks which may protect them from IBD for d Both A&B all ages byoung chicks c Adult birds d Above all a up to 100 percent mortality in susceptible birds c Newcastle disease virus infects the birds of d Both A&B all ages byoung chicks c Adult birds d Above all a up to 100 percent mortality in susceptible birds c No mortality in susceptible birds d Both A&B all ages byoung chicks c Adult birds d Above all a up to 100 percent mortality in susceptible birds d Both A&B all ages byoung chicks c Adult birds d Above all a up to 100 percent mortality in susceptible birds d Both A&B all ages power and prominent feature of ND virus infection caused by a mortality in susceptible birds d Both A&B all entogenic strains be lentogenic strains be lentogenic strains all ulcers on the skin b ulcers in the intestine b ulcers in the intestine c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains d Above all a Rabbit raBCs b Sheep RBCs c Horse RBCs d None of the above a Acrosol b feed c contaminated equipment d Both A&B and None of the above a Received in the feed c contaminated equipment d Both A&B and None of the above a Extendible of the shore a Received in the feed c Gundaminated equipment c G. Enecatrix d Extendible of the shore a Received in the feed of the shore a Received in the feed of the shore a Received in the shore a Received			c		
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maternal antibodies to their chicks which may protect them from IBD for d Both A&B  44 Newcastle disease virus infects the birds of Adult birds d Above all a up to 100 percent mortality in susceptible birds d Both A&B  45 Velogenic strains of NDV can cause  46 Nervous signs are a prominent feature of ND virus infection caused by  47 Pervous signs are a prominent feature of ND virus infection caused by  48 Nervous signs are a prominent feature of ND virus infection caused by  48 Norvous signs are a prominent feature of ND virus infection caused by  49 ND virus against the protect poultry include  40 No virus against the protect poultry include  41 No virus against the protect poultry include  42 No virus against the protect poultry include  43 No virus against the protect poultry include the protect poultry include  44 No virus against the protect poultry include the protect poultry inc		Prooding hone infected with field IPD views transfer	a	2-4 weeks	
which may protect them from IBD for d Both A&B  144 Newcastle disease virus infects the birds of b young chicks  254 Adult birds 255 Adult birds 255 Adult birds 255 Adult birds 255 Adult birds 256 Adult birds 257 Adult birds 257 Adult birds 258 Above all 258 Above all 259 Above all 250 Above all 250 Above all 250 Above all 250 Above all 251 Above all 252 Adult birds 253 Above all 253 Above all 253 Above all 255 Above all 256 Above all 257 Above all 257 Above all 258 Above all 258 Above all 259 Above all 250 Above all 250 Above all 250 Above all 251 Above all 252 Above all 253 Above all 253 Above all 255 Above all 256 Above all 257 Above all 258 Above all 259 Above all 250 Above all 250 Above all 250 Above all 250 Above all 251 Above all 252 Above all 253 Above all 253 Above all 254 Above all 255 Above all 255 Above all 256 Above all 257 Above all 258 Above all 258 Above all 259 Above all 260 Above all 270 Above all 280 Above all 380 Above a	12		b	2-4 months	
Newcastle disease virus infects the birds of  Adult birds  Above all  a up to 100 percent mortality in susceptible birds  b up to 20 percent mortality in susceptible birds  c No mortality in susceptible birds  d Both A&B  a mesogenic strains  Nervous signs are a prominent feature of ND virus infection caused by  Application of the Eimeria spp. is poor in cyst production  b up to 20 percent mortality in susceptible birds  c No mortality in susceptible birds  d Both A&B  a mesogenic strains  b lentogenic strains  c velogenic strains  d Both A&B  a ulcers on the skin  b ulcers in the intestine  c hemorrhages on the mucosa of proventriculus  d Above all  a Mesogenic strains  b Velogenic strains  c Lentogenic strains  d Above all  a Rabbit RBCs  b Sheep RBCs  c Horse RBCs  d None of the above  a Acrosol  b feed  c contaminated equipment  d Both A&B  a ulcers on the skin  b Velogenic strains  c Lentogenic strains  c Lentogenic strains  d Above all  a Rabbit RBCs  b Sheep RBCs  c Horse RBCs  d None of the above  a Acrosol  b feed  c contaminated equipment  d Both A&B  a ulcers on the skin  b Ucers in the intestine  c hemorrhages on the mucosa of proventriculus  d Above all  a Mesogenic strains  c Lentogenic strains  c Lentogenic strains  c Lentogenic strains  c Lentogenic strains  d Above all  a Rabbit RBCs  b Sheep RBCs  c Horse RBCs  d None of the above  a Acrosol  b feed  c contaminated equipment  d Both A&B  a Hemagelutination test  b Hemagelutination inhibition test  b Hemagelutination inhibition test  b Hemagelutination inhibition test  b Hemagelutination inhibition test	43		c	for life	
Newcastle disease virus infects the birds of contaminated equipment double birds susceptible birds   Double birds		which may protect them from IBD for	d	Both A&B	
Newcastle disease virus infects the birds of contaminated equipment double birds susceptible birds   Double birds			a	all ages	
C			b	~	
45 Velogenic strains of NDV can cause  b up to 20 percent mortality in susceptible birds  c No mortality in susceptible birds  d Both A&B  a mesogenic strains  b lentogenic strains  c velogenic strains  c velogenic strains  d Both A&B  a ulcers on the skin  b ulcers in the intestine  c hemorrhages on the mucosa of proventriculus  d Above all  a Mesogenic strains  c Lentogenic strains  c Lentogenic strains  b Velogenic strains  c hemorrhages on the mucosa of proventriculus  d Above all  a Rabbit RBCs  b Sheep RBCs  c Horse RBCs  d None of the above  a Acrosol  b feed  c contaminated equipment  d Both A&B  a Mesogenic strains  c Lentogenic strains  b Velogenic strains  c Contaminated equipment  d Both A&B  a Newcastle Disease  hore of the above  a E renella  b E acervalina  c E negarix  d E hagani  a Hemagglutination test  b Hemagglutination inhibition test  b Hemagglutination inshibition test  b Hemagglutination inshibition test  c Both of the above mentioned	44	Newcastle disease virus infects the birds of	_		
Velogenic strains of NDV can cause  Velogenic strains of NDV can cause  b up to 20 percent mortality in susceptible birds c No mortality in susceptible birds d Both A&B a mesogenic strains b lentogenic strains b lentogenic strains c velogenic strains d Both A&B a ulcers on the skin b ulcers in the intestine c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains b Velogenic strains c Lentogenic strains c Lentogenic strains b Velogenic strains c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains c Lentogenic strains b Velogenic strains d Above all a Mesogenic strains c Lentogenic strains d Above all a Rabbit RBCs b Sheep RBCs d None of the above a Aerosol b feed c contaminated equipment d Both A &B a nesogenic strains b lentogenic strains c Lentogenic strains b Velogenic strains c Lentogenic strains b lentogenic strains c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains b Velogenic strains c Lentogenic strains b lentogenic strains c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains b Velogenic strains c Lentogenic strains b lentogenic strains b ulcers in the intestine c hemorrhages on the mucosa of proventriculus d Above all a Mesogenic strains c Lentogenic strains b Velogenic strains c Lentogenic strains c Lentogenic strains b Infectious Bronchitis c Gumboro Disease d None of the above a E. tenella b E. acervalina c E. necartirix d E. hagami a Hemagglutination test b hemagglutination-inhibition test b hemagglutination-inhibition test c Both of the above mentioned					
Velogenic strains of NDV can cause    Velogenic strains of NDV can cause   b up to 20 percent mortality in susceptible birds			-		
Velogenic strains of NDV can cause    Composition   Susceptible birds   Composition			а		
46 Verigenic strains of NDV can cause    Susceptible birds   C   No mortality in susceptible birds			1-		
At the content of the property	45	Velogenic strains of NDV can cause	b		
As Nervous signs are a prominent feature of ND virus infection caused by  Nervous signs are a prominent feature of ND virus infection caused by  Nervous signs are a prominent feature of ND virus infection caused by  Nervous signs are a prominent feature of ND virus infection caused by  Nervous signs are a prominent feature of ND virus infection caused by  Norvous signs are a prominent feature of ND virus infection caused by  ND virus augment of the skin buces of proventriculus duces in the intestine chemorrhages on the mucosa of proventriculus do Above all a Mesogenic strains caused by Velogenic strains caused caused and Above all a Rabbit RBCs b Sheep RBCs c Horse RBCs d None of the above a Acrosol b feed c contaminated equipment devictions Bronochitis caused by Infectious Bronochitis caused by None of the above a Extendla be Exacervulina caused by Exa		č			
Nervous signs are a prominent feature of ND virus infection caused by  8					
Nervous signs are a prominent feature of ND virus infection caused by   lentogenic strains   c velogenic strains   d Both A&B   a ulcers on the skin   b ulcers in the intestine   c hemorrhages on the mucosa of proventriculus   d Above all   a Mesogenic strains   d Above all   a Mesogenic strains   d Above all   a Rabbit RBCs   b Sheep RBCs   c Horse RBCs   d None of the above   a Aerosol   b feed   ND virus applications of the strains   b feed   c contaminated equipment   d Both A &B   a Newcastle Disease   d None of the above   a E. tenella   b E. accrutina   c E.			d		
caused by  caused both A&B  a ulcers on the skin  b ulcers in the intestine  caused by  caused by  caused by  caused by  caused by  causers in the intestine  daucers in the intestine  causers in the intestine  causers in the intestine  daucers in the intestine  causers in the intestine  b exacterialist  causers in the intestine  causers in the intestine  causers in the intestine  daucers in the intestine  b exacterialist  causers in the intestine  b exacters in the intestine  causers in the intestine  causers in the intestine  b exacters in the intestine  causers in the					
47 Gross lesions in velogenic ND infection in chicken include  48 Infectious agglutinates  49 Infectious spreads by  49 Infectious spreads by  49 Infectious ground decided by special	16		b	lentogenic strains	
47 Gross lesions in velogenic ND infection in chicken include  48 Infectious proventiculus  49 Infectious spreads by  50 Infectious greates are vertically transmitted to newly hatched chicks  50 Which of the Eimeria spp. is poor in cyst production  50 Gross lesions in velogenic ND infection in chicken include  50 Infectious growth a lucers on the skin bulcers in the intestine  51 Infectious growth and influenza virus  52 Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  53 Infectious In the intestine  5 Infectious on the skin  5 Infectious on the skin  5 Infectious on the skin  5 Infectious strains  5 Infectious Bronchitis  6 Infectious Bronchitis  7 Infectious Bronchitis  8 Infectious Bronchitis  9 Infectious Bronchitis  10 Infectious Bronchitis  11 Infectious Bronchitis  12 Infectious Bronchitis  13 Infectious Bronchitis  25 Infectious Bronchitis  36 Infectious Bronchitis  47 Infectious Bronchitis  48 Infectious Bronchitis  49 Infectious Bronchitis  40 Infectious Bronchitis  40 Infectious Bronchitis  41 Infectious Bronchitis  42 Infectious Bronchitis  43 Infectious Bronchitis  44 Infectious Bronchitis  45 Infectious Bronchitis  46 Infectious Bronchitis  47 Infectious Bronchitis  48 Infectious Bronchitis  49 Infectious Bronchitis  40 Infectious Bronchitis  41 Infectious Bronchitis  42 Infectious Bronchitis  43 Infectious Bronchitis  44 Infectious Bronchitis  45 Infectious Bronchitis  46 Infectious Bronchitis  47 Infectious Bronchitis  48 Infectious Bronchitis  49 Infectious Bronchitis  40 Infectious Bronchitis  41 Infectious Bronchitis  42 Infectious Bronchitis  43 Infectious Bronchitis  44 Infectious Bronchitis  45 Infectious Bronchitis  46 Infectious Bro	40		c	velogenic starain	
B   Ulcers in the intestine   C   hemorrhages on the mucosa of proventriculus   d   Above all   a   Mesogenic strains   b   Velogenic strains     D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogeni			d	Both A&B	
B   Ulcers in the intestine   C   hemorrhages on the mucosa of proventriculus   d   Above all   a   Mesogenic strains   b   Velogenic strains     D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogenic strains   D   Velogeni			a	ulcers on the skin	
47 Gross lesions in velogenic ND infection in chicken include  48		Gross lesions in velogenic ND infection in chicken include	b		
Proventriculus   Above all   a Mesogenic strains	47				
Above all  a Mesogenic strains  Velogenic strains  b Velogenic strains  c Lentogenic strains  d Above all  a Rabbit RBCs  d Above all  a Rabbit RBCs  b Sheep RBCs  c Horse RBCs  d None of the above  a Aerosol  b feed  c contaminated equipment  d Both A &B  a Newcastle Disease  Following diseases are vertically transmitted to newly hatched chicks  The production  Which of the Eimeria spp. is poor in cyst production  Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  d Above all  a Mesogenic strains  b Velogenic strains  c Lentogenic strains  c Lentogenic strains  d Above all  a Mesogenic strains  b Velogenic strains  c Lentogenic strains  c Lentogenic strains  d Above all  a Mesogenic strains  b Velogenic strains  c Lentogenic strains  c Lentogenic strains  d Above all  a Mesogenic strains  c Lentogenic strains  c Lentogenic strains  b None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  b hemagglutination-inhibition test  b hemagglutination-inhibition test  c Both of the above mentioned	.,				
AB  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains employed as live vaccine to protect poultry include  In NDV strains  In NDV strains employed as live vaccine to protect poultry include  In Lengence strains  In NDV strains employed as live vaccine to protect poultry include  In Lengence strains  In NDV strains  In NDV strains employed as live vaccine to protect poultry  In Lengence strains  In NDV strains employed as live vaccine to protect poultry  In Lengence strains  In NDV strains employed as leteronge strains  In Above all  In Herse BCS  In Horse RBCS  In Horse RB			d		
. NDV strains employed as live vaccine to protect poultry include    Above all			-		
include    C		NDV strains amployed as live veccine to protect poultry			
Above all  a Rabbit RBCs b Sheep RBCs c Horse RBCs d None of the above a Aerosol b feed c contaminated equipment d Both A &B a Newcastle Disease Following diseases are vertically transmitted to newly hatched chicks  Following diseases are vertically transmitted to newly hatched chicks  Which of the Eimeria spp. is poor in cyst production  Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  d Above all a Rabbit RBCs b Sheep RBCs c Horse RBCs d None of the above a Aerosol b feed c contaminated equipment d Both A &B a Newcastle Disease b Infectious Bronchitis c Gumboro Disease d None of the above a E. tenella b E. acervulina c E. necatrix d E. hagani a Hemagglutination test b hemagglutination-inhibition test c Both of the above mentioned	48				
A9 .ND virus agglutinates  a Rabbit RBCs b Sheep RBCs c Horse RBCs d None of the above a Aerosol b feed c contaminated equipment d Both A &B a Newcastle Disease Following diseases are vertically transmitted to newly hatched chicks  Following diseases are vertically transmitted to newly hatched chicks  Which of the Eimeria spp. is poor in cyst production  Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  a Rabbit RBCs b Sheep RBCs c Horse RBCs d None of the above a Aerosol b feed c contaminated equipment d Both A &B a Newcastle Disease d None of the above a E. tenella b E. accervulina c E. necatrix d E. hagani a Hemagglutination test b hemagglutination test c Both of the above mentioned		niciude			
ND virus agglutinates   b   Sheep RBCs   c   Horse RBCs   d   None of the above   a   Aerosol   b   feed   c   contaminated equipment   d   Both A &B   a   Newcastle Disease   large to gumboro Disease   d   None of the above   a   None of the above   large to gumboro Disease   d   None of the above   a   E. tenella   b   E. acervulina   c   E. necatrix   d   E. hagani   a   Hemagglutination test   b   hemagglutination test   b   hemagglutination-inhibition test   c   Both of the above mentioned   c   Both of					
Solution and the second					
50 ND virus spreads by  51 ND virus spreads by  52 ND virus spreads by  53 ND virus spreads by  54 ND virus spreads by  55 ND virus spreads by  56 Aerosol  57 Contaminated equipment  58 d Both A &B  59 a Newcastle Disease  a Newcastle Disease  a Newcastle Disease  d None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  b hemagglutination test  b hemagglutination-inhibition test  c Both of the above mentioned	49	.ND virus agglutinates	b	1	
ND virus spreads by   a   Aerosol					
ND virus spreads by   b   feed   c   contaminated equipment   d   Both A &B			d		
50 ND virus spreads by  c contaminated equipment d Both A &B  a Newcastle Disease  Following diseases are vertically transmitted to newly hatched chicks  c Gumboro Disease d None of the above a E. tenella  b E. acervulina c E. necatrix d E. hagani  Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  c contaminated equipment d Both A &B  a Newcastle Disease  C Gumboro Disease d None of the above a E. tenella b E. acervulina c E. necatrix d E. hagani c Both of the above mentioned			a		
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Following diseases are vertically transmitted to newly hatched chicks  To low ing diseases are vertically transmitted to newly hatched chicks  To low ing diseases are vertically transmitted to newly hatched chicks  To low infectious Bronchitis  Coumboro Disease  do None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  Newcastle disease virus and Avian influenza virus  To low infectious Bronchitis  Coumboro Disease  do None of the above  a E. tenella  b E. necatrix  c E. negatrix  d E. hagani  a Hemagglutination test  b hemagglutination-inhibition test  Country  To low infectious Bronchitis  Country  Both of the above mentioned	] 30	The virus spicads by	С		
Following diseases are vertically transmitted to newly hatched chicks  C Gumboro Disease  d None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  Newcastle disease virus and Avian influenza virus  D Infectious Bronchitis  c Gumboro Disease  d None of the above  a E. tenella  b E. necatrix  c E. necatrix  c Both of the above mentioned			d	Both A &B	
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hatched chicks  c Gumboro Disease d None of the above a E. tenella b E. acervulina c E. necatrix d E. hagani a Hemagglutination test Newcastle disease virus and Avian influenza virus  c Gumboro Disease d None of the above a E. tenella b E. acervulina c E. necatrix c Both of the above mentioned	51	Following diseases are vertically transmitted to newly	b	Infectious Bronchitis	
d None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  Newcastle disease virus and Avian influenza virus  d None of the above  a E. tenella  b E. acervulina  c E. necatrix  d E. hagani  a Hemagglutination test  b hemagglutination-inhibition test  c Both of the above mentioned					
Which of the Eimeria spp. is poor in cyst production  Building a b					
Which of the Eimeria spp. is poor in cyst production  b					
Which of the Eimeria spp. is poor in cyst production  c					
d E. hagani a Hemagglutination test Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  d E. hagani a Hemagglutination test b hemagglutination-inhibition test c Both of the above mentioned	52	Which of the Eimeria spp. is poor in cyst production	-		
Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  a Hemagglutination test b hemagglutination-inhibition test c Both of the above mentioned		FF F Joe Production			
Which of the following test can distinguish between Newcastle disease virus and Avian influenza virus  b hemagglutination-inhibition test c Both of the above mentioned				·	
Newcastle disease virus and Avian influenza virus  c Both of the above mentioned		XXII. 1 6 4 6 H			
Newcastle disease virus and Avian influenza virus c Both of the above mentioned	53		b		
d None of above					
			d	None of above	

		a	Normal
	What the usual look of bursa of Fabricius in birds affected with Mareks Disease	b	Atrphied
54		c	Swollen
	With Marcks Disease	d	None of above
			S. gallinarum
	-	a b	
55	Which of the following salmonella species is host specific		S. typhimurium
		C	S. typhi
		d	Both A&B
	What is the appearance of <i>E. coli</i> colonies on MacConkey's	a	Pink
56		b	Black
	agar	c	Colorless
		d	Blue
		a	E. acervulina
57	Which one of the following Eimeria spp. is the most	b	E. hagani
	pathogenic	c	E. tenella
		d	E. praecox
		a	Yolk Sac
58	. Route of inoculation of embryonating eggs for Newcastle	b	Chjorioallantoic membrane
38	and Avian Influenza viruses is	c	Allantoic cavity
		d	None above
		a	Swollen kidneys
	What are finding in birds suffering from sulfonamide	b	ruffled feathers
59	toxicity	С	pneumonia
		d	Both A&B
	Thin shelled deformed eggs with thin albumin are indicative of	a	EDS infection
		b	Infectious bronchitis
60		c	Pullorum disease
		d	All above
		a	Mycoplasma gallisepticum infection
		b	Salmonella gallinarum infection
61	Airsacculitis in young chicks is suggestive of		Fowl cholera
	, ,	c d	All above
			Infectious bronchitis
	Tufantiana annat harana ta indena haranambania tarahaitia in	<u>a</u>	
62	Infectious agent known to induce hemorrhagic tracheitis in	b	Fowl cholera
	bird is	c	infectious laryngotrachei
		d	Both B&C
		a	Salmonella pullorum
63	. Causative agent of fowl typhoid is	b	salmonella gallinarum
	causaure agent of 10 mr typnota is	С	salmonella typhimurium
		d	All above
		a	Chloromphenicol
64	Drug of choice for salmonella is	b	Oxytetracycline
"	Drug of choice for summonent is	c	Tylosin
		d	Lincomycin
		a	Broilers
65	Coccidiosis is a disease of	b	Layers
		С	Both A&B
		d	None above
		a	Eimeria tenella
		b	Eimeria acervulina
66	Cecal Coccidiosis is caused by	c	Eimeria praecox
		d	All above
		a	vertically transmitted disease
		b	horizontally transmitted disease
67	Coccidiosis is a		None of any one
		c d	All above
		u	All above

		a	Intestine
	In Coccidiosis hemorrhages occur in	b	Proventriculus
68		c	Heart
		d	All above
			Clostridial diseases
		a	
69	In recovery stage of Coccidiosis birds are more susceptible	b	Fungal Diseases
	to	С	Viral diseases
		d	none of above
		a	9
70	In chicken species of <i>Eimeria</i> have been described	b	6
70	in elleken species of Limeria have been described	c	12
		d	10
		a	Aspergillus
7.1	A.C	b	Alternaria
71	Aflatoxin is produced by	С	Fusarium
		d	Mucor
		a	Ducks
		b	Chicken
72	Which type of birds is more susceptible to aflatoxins?	-	
	-	С	Turkey
		d	Parrots
		a	Ochratoxin A
73	The most toxic Ochratoxin is	b	Ochratoxin B
73	The most toxic Ochiatoxin is	c	Ochratoxin C
		d	Ochratoxin D
		a	Fusarium
7.4	DON toxin is produced by	b	Penicillium
74		С	Aspergillus
		d	All above
		a	37 1
		b	Hepatotoxic mycotoxin
75	Ochratoxin is a	С	None of above
		d	All above
		a	Ochratoxin
		b	Aflatoxin
76	In Balkan nephropathies toxin was involved	-	Zearalenone
		С	
		d	None above
		a	Wheat
77	Ochratoxin mostly contaminate	b	Maize
-	•	С	Rice
		d	Above all
		a	Wheat
78	Aflatoxin mostly contaminate	b	Maize
10	AHAWAHI HUSHY CUMAHIHIAC	С	Rice
		d	None
		a	Biliary hyperplasia
		b	Biliary hypoplasia
79	Micrscopic lesions of mycotoxicosis in chicken in liver	c	Biliary aplasia
		d	Above all
			5-10 mg/kg
		a b	10-20 mg/kg
80	Therapeutic dose of gentamicin in poultry is		
	Therapeatic dose of gentamient in pountry is	С	20-50 mg/kg
		d	None above
			40.4
		a	10 days
81	After I/M injection Gentamicin retained in kidneys for	a b	30 days
81	After I/M injection Gentamicin retained in kidneys for		

	T T		Enhance suith sliel sensie
82		a	Enhance epithelial repair
	Vitamin A deficiency in poultry feeds may result in	b	visceral urate deposits
	The state of the s	С	Weak bones
		d	None above
		a	Thin and soft shelled eggs
83	Vitamin D deficiency may result in	b	Nervous signs
0.5	- Vitaliili D deficiency may result in	c	Thick bone
		d	None above
		a	Calcium
0.4	III. at atmospherical and all and at all has a desirable and	b	high level of Phosphorus
84	Heat stress can be partially alleviated by administering	С	Vitamin C
		d	Above all
		a	High protein diet
0.7		b	Heat stress
85	Partially cooked muscles is a characteristic feature of	c	Calcium deficiency
		d	Above all
		a	broken wings and ruffled feathers
		b	dryness and grooves on the shanks
86	Dehydration in young chicks is evident by		
		c d	Dry tongue Above all
		a	Fatty liver in chicken
87	Concurrent administration of Ionophore antibiotics and	b	Swollen kidneys
	tiamulin may result in	С	Lameness
		d	None
	Vitamin E supplementation of feed in chicken results in	a	improved spermatogenesis
88		b	Decrease feed intake
		c	improved egg production
		d	None above
		a	respiratory distress
90		b	enteritis
89	Excess ammonia in the poultry house results in	С	ruffled feathers
		d	Above all
		a	respiratory distress
0.0	Accumulation of smoke and foul gasses in the booder house	b	Ascites
90	may result in	С	increased water and feed intake
		d	Above all
		a	E. acervulina
	Which of the Eimeria species produces the largest	b	E. necatrix
91	schizonts?	c	E. maxima
	Somzonto:	d	Above all
			Mareks disease
	Lamanage and blind need is absorbed in fleater suffering	<u>a</u> b	
92	Lameness and blind ness is observed in flocks suffering		Reticuloendotheliosis
	from	С	Myeloid Leukosis
		d	None above
		a	No
93	Birds suffering from lymphoid leucosis can be kept for	b	Yes
	breeding purposes	С	Yes after treatment
		d	Above all
		a	No
94	Birds suffering from Mareks disease can be kept for	b	Yes
24	breeding purposes	c	No even after treatment
		d	Both A&B
		a	respiratory disease
95	Mycoplasama gallisepticum is the responsible for	b	enteritis
		С	nervous derangement
		d	None above
		•	

December			a	a nonpathogenic organism
Solution				1 0
Chronic respiratory disease is caused by  Chronic respiratory disease in caused by infectious bronchitis  All above  A 3 days  A 3 days  A 3 seveks  C Long and protracted  A Above all  Chronic respiratory disease in respiratory disease in a cause of the	96	Mycoplasma synoviae is		
Chronic respiratory disease is caused by  Incubation period of CRD in chicken is  In Mg infection prominent lesions are  In Mg infection pr				
Provide the section of the section o			d	
Chronic respiratory disease is caused by   Concurrent infection of Fowl cholera and E. coli			a	
Chromic respiratory disease is caused by   and E. coli				
Serum plate agglutination test for MG gives false positive results if birds are   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are detected by   Mycoplasma galisepticum antibodies in the serum are   Mycoplasma galisepticum antibo	07	Chronic respiratory disease is caused by	b	
Incubation period of CRD in chicken is   a 3 days   b 3 weeks   c 1.0ng and protracted   d None above   a 4 Air sacultiis   b Pertionitis   c nervous disorder   d Above all   showe   d Above all   d Above	91	Chronic respiratory disease is caused by		and E. coli
Incubation period of CRD in chicken is   a 3 days   b 3 weeks   c 1.0ng and protracted   d None above   a 4 Air sacultiis   b Pertionitis   c nervous disorder   d Above all   showe   d Above all   d Above			c	caused by infectious bronchitis
Incubation period of CRD in chicken is  In Mg infection prominent lesions are  In Mg a Agra gold in the search in the set of chicken  In Horizontally  In Horizontally  In Horizontally  In Infections coryza is a disease of  In Infections coryza is transmitted  In Infections coryza is transmitted  In Infections coryza is transmitted  In Infections coryza			d	
Incubation period of CRD in chicken is    C			a	3 days
Incubation period of CRD in chicken is   C   Long and protracted				
In Mg infection prominent lesions are	98	Incubation period of CRD in chicken is		
In Mg infection prominent lesions are    A				
In Mg infection prominent lesions are				
In Mg intection prominent testons are				
100   Mycoplasma gallisepticum infected breeder flock	99	In Mg infection prominent lesions are	b	
Mycoplasma gallisepticum infected breeder flock		g t t		
Mycoplasma gallisepticum infected breeder flock   b should be treated before hatching their eggs   c May be used for production of chicks   d None above   vertically   b Horizontally   c does not spread   d Above all   a chicken   b turkeys   c all species of birds   d None of these species   a Agar gel diffusion test   d All there above   d All three above   d			d	
Mycoplasma gallisepticum infected breeder flock   b   should be treated before hatching their eggs   C   May be used for production of chicks   d   None above   A   Vertically			a	Should not be used for production of
their eggs  c May be used for production of chicks d None above  a Vertically b Horizontally c does not spread d Above all chicken b turkeys c all species of birds d None of these species a Agar gel diffusion test d All three above a Agar gel diffusion test b Hemaglutination test c Plate serum agglutination test d All three above a Fed canola meal a Serum plate agglutination test for MG gives false positive results if birds are  105 Infectious coryza is a disease of  Clinical signs of Infectious coryza include  106  Infectious coryza is transmitted  their eggs c May be used for production of chicks d None sort spread d Above all a chicken b turkeys c all species of birds d None of these species a Agar gel diffusion test d All three above a Fed canola meal b infected with E. coli c administered killed vaccines d Both A & B young Chicks growing and laying birds c male chicken only d None a swollen inflamed sinuses Conjunctivitis c lameness d nervous derangement horizontally b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection infection c causes high mortality				chicks
their eggs  c May be used for production of chicks d None above  a Vertically b Horizontally c does not spread d Above all chicken b turkeys c all species of birds d None of these species a Agar gel diffusion test d All three above a Agar gel diffusion test b Hemaglutination test c Plate serum agglutination test d All three above a Fed canola meal a Serum plate agglutination test for MG gives false positive results if birds are  105 Infectious coryza is a disease of  Clinical signs of Infectious coryza include  106  Infectious coryza is transmitted  their eggs c May be used for production of chicks d None sort spread d Above all a chicken b turkeys c all species of birds d None of these species a Agar gel diffusion test d All three above a Fed canola meal b infected with E. coli c administered killed vaccines d Both A & B young Chicks growing and laying birds c male chicken only d None a swollen inflamed sinuses Conjunctivitis c lameness d nervous derangement horizontally b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection infection c causes high mortality	100	M 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	b	should be treated before hatching
101 Mycoplasma synoviae is transmitted    C	100	Mycoplasma gallisepticum infected breeder flock		Č .
Mycoplasma synoviae is transmitted			С	
Mycoplasma synoviae is transmitted				• •
Mycoplasma synoviae is transmitted   b   Horizontally   c   does not spread   d   Above all   a   chicken   b   turkeys   c   all species of birds   d   None of these species   a   Agar gel diffusion test   d   All above				
102 Mycoplasma synoviae is transmitted    C   does not spread   Above all     a   chicken     b   turkeys     c   all species of birds     d   None of these species     a   Agar gel diffusion test     b   Hemagglutination test     c   Plate serum agglutination test     d   All three above     c   administered killed vaccines     d   Both A & B     a   Young Chicks     b   growing and laying birds     c   male chicken only     d   None     Clinical signs of Infectious coryza include     Infectious coryza is transmitted     I		Mycoplasma synoviae is transmitted		
102 Mycoplasma melagreadis produces disease in  Mycoplasma melagreadis produces disease in  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Bernam James Jam	101			Ť
102 Mycoplasma melagreadis produces disease in  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Hemagglutination test  All three above  All three above  a Fed canola meal  b infected with E. coli  c administered killed vaccines  d Both A & B  a Young Chicks  growing and laying birds  male chicken only  d None  a swollen inflamed sinuses  b Conjunctivitis  c lameness  d nervous derangement  a horizontally  b Vertically  c does not spread  d All above  a reoccurs after treatment  b solid immunity develops after infection  infection  c causes high mortality				
Mycoplasma melagreadis produces disease in			-	
Mycoplasma metagredats produces disease in				
Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  By Hemagglutination test  C Plate serum agglutination test  All three above  a Fed canola meal  b infected with E. coli  c administered killed vaccines  d Both A & B  Young Chicks  b growing and laying birds  c male chicken only  d None  a swollen inflamed sinuses  b Conjunctivitis  c lameness  d nervous derangement  horizontally  b Vertically  c does not spread  d All above  a reoccurs after treatment  b solid immunity develops after infection  c causes high mortality	102	Myconlasma melagreadis, produces disease in	b	
Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Mycoplasma galisepticum antibodies in the serum are detected by  Hemagglutination test  All three above  a Fed canola meal  b growing and laying birds  c male chicken only  d None  a swollen inflamed sinuses  b Conjunctivitis  c lameness  d nervous derangement  horizontally  b Vertically  c does not spread  d All above  a reoccurs after treatment  b solid immunity develops after infection  c causes high mortality	102	mycopiusmu metagreaus produces disease in	c	all species of birds
Mycoplasma galisepticum antibodies in the serum are detected by    All three above			d	None of these species
Mycoplasma galisepticum antibodies in the serum are detected by    All three above			a	Agar gel diffusion test
detected by  detected by  detected by  c Plate serum agglutination test d All three above a Fed canola meal b infected with <i>E. coli</i> c administered killed vaccines d Both A & B a Young Chicks b growing and laying birds c male chicken only d None  a swollen inflamed sinuses  Clinical signs of Infectious coryza include  107  Infectious coryza is transmitted  Description of the color of the col	100	Mycoplasma galisepticum antibodies in the serum are	b	
Serum plate agglutination test for MG gives false positive results if birds are  Serum plate agglutination test for MG gives false positive results if birds are  Serum plate agglutination test for MG gives false positive results if birds are  Description of the problem of the	103		С	
Serum plate agglutination test for MG gives false positive results if birds are    105		,		
Serum plate agglutination test for MG gives false positive results if birds are    C				
results if birds are  c administered killed vaccines d Both A & B  a Young Chicks b growing and laying birds c male chicken only d None  a swollen inflamed sinuses b Conjunctivitis c lameness d nervous derangement a horizontally b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection  Infectious coryza  C administered killed vaccines  a Young Chicks b growing and laying birds c male chicken only d None  a swollen inflamed sinuses b Conjunctivitis c lameness d nervous derangement a horizontally c does not spread d All above a reoccurs after treatment b solid immunity develops after infection c causes high mortality		Sorum plate agglutination test for MC gives false positive		
Infectious coryza is a disease of	104			
Infectious coryza is a disease of  Infectious coryza is disease of  Infect		results if birds are		
Infectious coryza is a disease of    b	<u> </u>			
105 Infectious coryza is a disease of    C				C
Clinical signs of Infectious coryza include  Color infectious derangement  a horizontally  b Vertically  c does not spread  d All above  a reoccurs after treatment  b solid immunity develops after infection  c causes high mortality	105	Infectious coryza is a disease of	b	
106 Clinical signs of Infectious coryza include  Clinical signs of Infectious coryza include inc	105	interious corpius is a disouse of		
Clinical signs of Infectious coryza include  Clinical signs of Infectious coryza include include signs of Infectious coryza include include signs of Infectious coryza include signs of Infecti	<u></u>		d	
Clinical signs of Infectious coryza include  c lameness d nervous derangement a horizontally b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection c causes high mortality			a	swollen inflamed sinuses
Clinical signs of Infectious coryza include  c lameness d nervous derangement a horizontally b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection c causes high mortality	100	Citation of Land of Land	b	Conjunctivitis
107 Infectious coryza is transmitted  Infectious coryza is transmitted  Infectious coryza is transmitted  Infectious coryza is transmitted  Infectious coryza	106	Chinical signs of infectious coryza include	С	ř
107 Infectious coryza is transmitted    Description				
Infectious coryza is transmitted  b Vertically c does not spread d All above a reoccurs after treatment b solid immunity develops after infection c causes high mortality				
c does not spread d All above a reoccurs after treatment b solid immunity develops after infection c causes high mortality				
d All above  a reoccurs after treatment  b solid immunity develops after infection  c causes high mortality	107	Infectious coryza is transmitted		
a reoccurs after treatment b solid immunity develops after infection c causes high mortality				
108 Infectious coryza b solid immunity develops after infection c causes high mortality				
108 Infectious coryza infection c causes high mortality				
c causes high mortality			b	
	108	Infectious coryza		
d All above			С	
			d	All above

			Continuous antibiotic treatment
	Infectious coryza can be prevented by	a b	
109			using live vaccines using killed vaccine
		c d	None above
		a	long duration (weeks)
110	Incubation period for infectious coryza is	b	short duration (18-36 hours)
		С	Very short duration (3-6 hours)
		d	Above all
		a	Pasturella multocida
111	Causative agent of Fowl cholera is	b	Salmonella typhi
111	Causaire agent of Fown enoisia is	c	Pseudomonas auroginosa
		d	All above
		a	young chicks of 2 weeks of age
112	Favil Chalara is a disasse of	b	Maturing and adult birds
112	Fowl Cholera is a disease of	С	cull birds
		d	None above
		a	Swelling of Wattles
		b	purulent pneumonia
113	In chronic fowl cholera characteristic findings are	c	peritonitis
		d	None of the above mentioned
		a	aerosol means
		b	vertical spread
114	Fowl cholera is spread by		Carrier birds
		С	Above all
		d	
		a	low (below 5%)
115	In acute fowl cholera mortality is	b	high ((Above 30%)
	, ,	С	no mortality
		d	None above
		a	coccidiosis
116	Necrotic enteritis usually accompany or follows	b	Fowl cholera
110	recrotic enteriors usually accompany of follows	С	mycoplasma infection
		d	All above
		a	E. coli
117	Consortions assert for a security and with its	b	Streptococcus spp.
117	Causative agent for necrotic enteritis is	С	Clostridium perfringens
		d	All above
		a	very short (few hours)
		b	3-5 Days
118	In necrotic enteritis duration of the clinical course is	c	more than a week
		d	All above
		a	emaciated
		b	Well fed
119	Birds dying of necrotic enteritis are		males only
		c d	None above
		a	Salmonella typhimurium
	Ulcerative enteritis is caused by	b	Mycoplasma iowe
120	Ulcerative enteritis is caused by		1 / Toghai diasan oo lisaasan
120	Ulcerative enteritis is caused by	С	Clostridium colinum
120	Ulcerative enteritis is caused by	c d	All above
120	Ulcerative enteritis is caused by		All above no clinical signs
		d	All above no clinical signs emaciation
120	Ulcerative enteritis is caused by  In acute cases of ulceratie enteritis birds may show	d a	All above no clinical signs
		d a b	All above no clinical signs emaciation
		d a b	All above no clinical signs emaciation constipation No above
121	In acute cases of ulceratie enteritis birds may show	d a b c	All above no clinical signs emaciation constipation No above salmonella spp.
		d a b c d a	All above no clinical signs emaciation constipation No above

			Due amagina manufacti
		a	Progressive paralysis
123	Clinical signs of <i>Clostridium botulinum</i> infection in chicken	b	Respiratory signs
	are characterized by	С	Excitement
		d	None above
		a	endotoxins
124	Clostridial organisms produce	b	exotoxins
121	Closuratur organisms produce	c	calcium
		d	All above
	Staphylococcus aureus is responsible for	a	early chick mortality
125		b	Necrotic enteritis
123		c	respiratory distress
		d	Above all
		a	Purulent arthritis
100	T 11 1 G. 1 11 11 G.	b	Enteritis
126	In chicken, <i>Staph. aureus</i> is mainly responsible for	С	Pneumonia
		d	None above
		a	Mycoplasma
		b	Salmonella gallinarum
127	Vertically transmitted diseases are	c	Fowl cholera
		d	infectious coryza
		a	Escherichia coli
	+	b	Mycoplasma gallisepticum
128	Organism contaminating the eggs in the nest is		Pasturella multocida
		d d	None above
		-	200 meters
	E Discounits assessed listeness between two baselines	a 1-	
129	For Biosecurity purposes distance between two breeding farms should be not less than	b	1000 meters
		С	5000 meters
		d	Above all
		a	Oxytetracycline
130	Round worms in the chicken gut can be successfully	b	Lincomycin
	removed by administration of	С	Levamisole
		d	Above all
		a	Zinc bacitracin
131	Coccidiosis can be prevented by dietary administration of	b	chlortetracycline
151	coccidiosis can be prevented by dictary administration of	С	Salinomycin
		d	Above all
		a	Lameness in the laying hens
132	Egg drop syndrome virus infection results decreased egg	b	weak shelled eggs
132	production and	c	Watery albumin of eggs
		d	Above all
		a	chicken embryo
133	EDS virus is propagated in	b	Partridge embryo
133	EDS virus is propagated in	c	Duck embryo
		d	All above
		a	fatty change
124	To office the death of the death	b	perihepatitis
134	In aflatoxicosis chicken liver shows	с	hepatocellular carcinoma
		d	All above
		a	100 ppb
	Minimum acceptable level of aflatoxins B1 in poultry feed	b	300 ppb
135	is	c	20 ppb
	19	d	50 ppb
		a	Cardiac dilatation
		b	atrophy of muscles
136	Furazilodone toxicosis in chicken caused	c	nerve degeneration
		d	All above
<u></u>		u	באון מטטעב

Copper sulfate toxicity in chicken results in				1' 1
Copper surface toxicity in encicen results in	137	Copper sulfate toxicity in chicken results in	a	liver damage
Excess of Sodium in poultry feed results in   C   Increase   C			_	
Excess of Sodium in poultry feed results in    Ascites				
Excess of Sodium in poultry feed results in			d	
Excess of Sodium in pounty feed results in   C   Soft hones		Evenes of Sodium in poultry food results in		
139   Low dictary phosphorus levels result in	138		b	
Low dictary phosphorus levels result in    August   Description   Descri	130	Excess of Soutum in pountry feed results in	c	soft bones
Low dietary phosphorus levels result in    August			d	None above
Low dictary pnospnorus levels result in  Excess dietary Calcium levels file excess feets will in a liste of eggs  Excell dall above  Excess dietary Calcium levels in kidneys  Excess dietary Calcium levels feet ges  Excell dilation  All above  All above  Except department  Excell dianties diegs  Excell dall dieues  Excell dall deves  Excell dall deves  Excell dall deves  Excell dall dieues  Excell dall deves		To Para decide a la casa la casa de la	a	hyperesthesia
140   Excess dietary Calcium levels result in   2	120		b	Visceral gout
Excess dietary Calcium levels result in	139	Low dietary phosphorus levels result in	С	Blindness
Excess dietary Calcium levels result in   C   C   C   C   C   C   C   C   C			d	All above
Excess dietary Calcium levels result in   C   C   C   C   C   C   C   C   C			a	Urate deposits in kidneys
Excess detary Calcium levels result in    Comparison   Co				
Low calcium levels in feed results in   Low calcium levels in   Low calcium levels in feed results in   Low calcium levels	140	Excess dietary Calcium levels result in		
Low calcium levels in feed results in  Low calcium levels  Low calcium  All above  1				
Low calcium levels in feed results in    Low calcium levels in feed results in				
Low calcium levels in reed results in    C				
142   Collibacillosis is caused by	141	Low calcium levels in feed results in		
Collibacillosis is caused by  Example 142 Collibacillosis is caused by  Characteristic lesion in E.Coli infection is  Comsume the Enteritis  Characteristic lesion in E.Coli infection is  Bin E. Coli Above all  All above a Pericarditis & Perihapatitis  b. Hemorrhagic enteritis  c. Swollen and echaratous bursa  d. None above  a logantowics  b. For life  c. 20 weeks after appearance of tumors  d. None of the above mentioned  nerves  b. In Lymphoid leucosis tumors do not develop in  a nerves  b. In asian countries  c. in American countries  d. In all African Countries  d. In all African Countries  a at one day of age  b. at one weeks of age  c. Not vaccinated  d. Above all  a Yes  Birds recovered from Mareks disease shed virus in their eggs  c. may or may not shed				
Collibacillosis is caused by   Collibacillosis   Collibacillosis is caused by   Collibacillosis   Colliba	-			
Collibacillosis is caused by  Characteristic lesion in E.Coli infection is  Definition of the abnove and the polymorph leukocytes  Characteristic lesion in E.Coli infection is  Definition of the abnove and the polymorph leukocytes  Characteristic lesion in E.Coli infection is  Definition of the abnove and the polymorph leukocytes  Characteristic lesion in E.Coli infection is  Definition of the abnove and the polymorph leukocytes  Definition of the abnove and the appearance of tumors  Definition of the abnove and the a				
the content of the second process of the second process of the second points of the second po	142	Collibacillosis is caused by		
Late of the part o		Computations is caused by		
Characteristic lesion in E.Coli infection is  Caswollen and edematous bursa delenators del None above a logantibodies del None above a logantibodies del None above a logantibodies delenators delenators delenators del None above a logantibodies delenators delenators del None above a logantibodies delenators delenators del None above a logantibodies delenators del None above and logantibodies delenators delenators del None above and logantibodies del logantibodies del None above and logantibodies del logantibodies dell'ellos dell'ellos dell'ellos dell'ellos dell'ellos dell'ellos dell'ellos dell'ellos dellos dell'ellos dell'ellos dellos dell'el			d	
144 In myeloid leucosis tumor cells are comprised of  In lymphoid leucosis clinical cases continue to appear up to  In Lymphoid leukosis tumors cells give positive reaction for  In Lymphoid leucosis tumors do not develop in  In Lymphoid leucosis tumors do not develop in  Mareks disease virus is present  C Swollen and edematous bursa d None above a 10 weeks after appearance of tumors d None above a 10 weeks after appearance of tumors d None above a 10 GA antibodies In GA antibodies C IGM antibodies D In Lymphoid leucosis tumors do not develop in  A nerves D b muscle s C ovary D b In asian countries C in American countries C in American Countries A a tone day of age D b at one weeks of age C Not vaccinated D b No E Swollen and edematous bursa D b polymorph leukocytes C Bone cells D b For life C 20 weeks after appearance of tumors D if GA antibodies D in GA antibodies D in American countries D i		Characteristic lesion in <i>E.Coli</i> infection is	a	
144 In myeloid leucosis tumor cells are comprised of dependent of the polymorph leukocytes be polymorph leukocytes composed of dependent of the polymorph leukocytes composed of the polymorph leukocytes composed of dependent of the polymorph leukocytes composed of the polymorph leukocytes composed of dependent of the polymorph leukocytes composed	1/13		b	
144	143		c	Swollen and edematous bursa
In myeloid leucosis tumor cells are comprised of    Description			d	None above
145 In lymphoid leucosis clinical cases continue to appear up to  146 In Lymphoid leukosis tumors cells give positive reaction for In Lymphoid leukosis tumors cells give positive reaction for In Lymphoid leukosis tumors do not develop in  147 In Lymphoid leucosis tumors do not develop in  148 Mareks disease virus is present  148 Mareks disease virus is present  149 Birds are vaccinated for lymphoid leucosis  150 Birds recovered from Mareks disease shed virus in their eggs  16 Bone cells  16 None above  a 10 weeks after appearance of tumors  b For life  c 20 weeks after appearance of tumors  d None above  a 16 GA antibodies  b IGA antibodies  c IGM antibodies  d None of the above mentioned  a nerves  c ovary  d None above  a World Wide  b In asian countries  c in American countries  d In all African Countries  d In all African Countries  a at one day of age  b at one weeks of age  c Not vaccinated  d Above all  a Yes  b No  c may or may not shed			a	hepatocytes
145 In lymphoid leucosis clinical cases continue to appear up to  In Lymphoid leukosis tumors cells give positive reaction for  In Lymphoid leukosis tumors cells give positive reaction for  In Lymphoid leukosis tumors cells give positive reaction for  In Lymphoid leukosis tumors do not develop in  In Lymphoid leucosis tumors do not develop in  In Lymph	144		b	polymorph leukocytes
In lymphoid leucosis clinical cases continue to appear up to    146	144	in inversid feucosis tunior cens are comprised of	С	Bone cells
In lymphoid leucosis clinical cases continue to appear up to 20 weeks after appearance of tumors do None above  In Lymphoid leukosis tumors cells give positive reaction for 2 IGM antibodies  In Lymphoid leucosis tumors do not develop in 2 IGM antibodies  In Lymphoid leucosis tumors do not develop in 2 IGM antibodies  In Lymphoid leucosis tumors do not develop in 3 IGM antibodies  In Lymphoid leucosis tumors do not develop in 4 IGM antibodies  In Lymphoid leucosis tumors do not develop in 5 IGM antibodies  In Lymphoid leucosis tumors do not develop in 6 IGM antibodies  In Lymphoid leucosis tumors do not develop in 6 IGM antibodies  In Lymphoid leucosis tumors do not develop in 6 IGM antibodies  In Lymphoid leucosis tumors do not develop in 7 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 8 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis tumors do not develop in 9 IGM antibodies  In Lymphoid leucosis IGM antibodies  In Lymphoid leucosis IGM a			d	None above
In lymphoid leucosis clinical cases continue to appear up to    C   20 weeks after appearance of tumors			a	10 weeks after appearance of tumors
In Lymphoid leukosis tumors cells give positive reaction for    In Lymphoid leukosis tumors cells give positive reaction for    In Lymphoid leukosis tumors do not develop in    In Lymphoid leucosis tumors do not develop in    In Lymphoid leukosis tumors cells give positive reaction    IGA antibodies    IGA antibodies    IGM antibodies    IGM antibodies    I IGM antibodie	1.45		b	For life
In Lymphoid leukosis tumors cells give positive reaction for   IGA antibodies   b   IGA antibodies   c   IGM antibodies   c   IGM antibodies   d   None of the above mentioned   nerves   b   muscle s   c   ovary   d   None above   nerves   b   In asian countries   nerves   b   In asian countries   nerves	145	In lymphoid leucosis clinical cases continue to appear up to		
In Lymphoid leukosis tumors cells give positive reaction for   In Lymphoid leukosis tumors do not develop in   In Lymphoid leucosis tumors do not develop in   In Lymphoid leu				
In Lymphoid leukosis tumors cells give positive reaction for   In Lymphoid leukosis tumors cells give positive reaction for   In Lymphoid leukosis tumors do not develop in				
for c IGM antibodies d None of the above mentioned a nerves b muscle s c ovary d None above a World Wide b In asian countries c in American countries d In all African Countries d In all African Countries a at one day of age b at one weeks of age c Not vaccinated d Above all  Birds recovered from Mareks disease shed virus in their eggs  Birds recovered from Mareks disease shed virus in their eggs  c IGM antibodies d nerves b muscle s c ovary d None above a World Wide b In asian countries c in American countries d In all African Countries a at one day of age c Not vaccinated d Above all a Yes b No c may or may not shed		In Lymphoid leukosis tumors cells give positive reaction		
147   In Lymphoid leucosis tumors do not develop in   a nerves	146			
In Lymphoid leucosis tumors do not develop in  In Lymphoid leucosis  In Mone above  A World Wide  In asian countries  In All African Countries  In all African Countries  In all African Countries  In at one day of age  In at one weeks of age  In Not vaccinated  In Above all  In Above a		101		
In Lymphoid leucosis tumors do not develop in    The Lymphoid leucosis tumors do not develop in   Development   Covary				
148 Mareks disease virus is present  Mareks disease virus is present  Birds are vaccinated for lymphoid leucosis  Birds recovered from Mareks disease shed virus in their eggs  Covary  A World Wide  Din asian countries  Coin American countries  a at one day of age  b at one weeks of age  Conot vaccinated  d Above all  a Yes  Birds recovered from Mareks disease shed virus in their eggs				
Mareks disease virus is present   a World Wide	147	In Lymphoid leucosis tumors do not develop in		
Hareks disease virus is present  Mareks disease virus is present  Birds are vaccinated for lymphoid leucosis  Birds recovered from Mareks disease shed virus in their eggs  A World Wide  b In asian countries  a at one day of age  b at one weeks of age  c Not vaccinated  d Above all  a Yes  Birds recovered from Mareks disease shed virus in their eggs		y 1		· ·
148 Mareks disease virus is present    Description	-			
149 Birds are vaccinated for lymphoid leucosis  Birds recovered from Mareks disease shed virus in their eggs  C in American countries  d In all African Countries  a at one day of age  b at one weeks of age  c Not vaccinated  d Above all  a Yes  Birds recovered from Mareks disease shed virus in their eggs  C may or may not shed				
Birds are vaccinated for lymphoid leucosis  Birds are vaccinated for lymphoid leucosis  Birds recovered from Mareks disease shed virus in their eggs  C in American countries  a at one day of age  b at one weeks of age  c Not vaccinated  d Above all  a Yes  b No  c may or may not shed	148	Mareks disease virus is present		
Birds are vaccinated for lymphoid leucosis  a at one day of age b at one weeks of age c Not vaccinated d Above all a Yes  Birds recovered from Mareks disease shed virus in their eggs  b at one weeks of age c Not vaccinated d Above all c may or may not shed		ı		
Birds are vaccinated for lymphoid leucosis  b at one weeks of age c Not vaccinated d Above all a Yes  Birds recovered from Mareks disease shed virus in their eggs  b at one weeks of age c Not vaccinated d Above all a Yes c may or may not shed			d	
Birds are vaccinated for lymphoid leucosis  c Not vaccinated  d Above all  a Yes  Birds recovered from Mareks disease shed virus in their eggs  c Not vaccinated  d Above all  a Yes  c may or may not shed				
Birds recovered from Mareks disease shed virus in their eggs    C	149	Birds are vaccinated for lymphoid lencosis	b	
Birds recovered from Mareks disease shed virus in their eggs  a Yes  b No  c may or may not shed	117	Birds are vaccinated for lymphoid leucosis		
Birds recovered from Mareks disease shed virus in their eggs b No c may or may not shed			d	
eggs c may or may not shed			a	
eggs c may or may not shed	150		b	No
	130		С	may or may not shed
a   Above an			d	Above all

**Keys MCQs Section C: Poultry Pathology** 

No.	Answer	No.	Answer	No.	Answer
1	A	51	D	101	A,B
2	A	52	С	102	В
3	D	53	В	103	В,С
4	С	54	В	104	C
5	С	55	A	105	В
6	A	56	A	106	A,B
7	A	57	С	107	A
8	С	58	С	108	A
9	A	59	A	109	С
10	A	60	В	110	В
11	A,B	61	A	111	A
12	Č	62	С	112	В
13	В	63	В	113	A,B,C
14	С	64	A	114	C
15	A	65	C	115	В
16	C	66	A	116	A
17	D	67	В	117	C
18	C	68	A	118	A
19	A	69	A	119	В
20	A	70	A	120	C
21	A	71	A	121	A
22	A	72	A	122	В
23	C	73	A	123	A
24	C	74	A	124	В
25	C	75	A	125	A
26	A	76	A	126	A
27	C	77	A	127	A,B
28	В	78	B	128	A
29	C	79	A	129	В
30	A	80	A	130	C
31	В	81	B	131	C
32	D	82	В	132	В
33	C	83	A	133	C
34	A	84	C	134	A
35	A	85	В	135	C
36	A	86	В	136	A
37	B	87	C	137	A
38	A	88	A	138	A
39	B	89	A	139	B
40	В	90	A.B	140	A
41	В	91	В	141	B
42	В	92	A	142	A
43	A	93	A	143	A
44	A	94	B	144	B
45	A	95	A	145	В
46	C	96	B	146	C
47	В	97	A	147	A
48	A,B	98	C	148	A
49	A,B	99	A,B	149	C
50	A,B A,C	100	A,B	150	В
50	A,C	100	I A	150	<u>ں</u>

# Institute of Pharmacy, Physiology and Pharmacology MCQs Section A: Physiology

S.No	Question	Choice	Answer
		a	Histology
		b	Anatomy
1	Which subject deals with the integrated functions of the	С	Physiology
	body?	d	Psychology
		a	System
	Which functional groups are formed by the association of	b	Body
2	various tissues?	c	Skeleton
	various dissues.	d	Organ
		a	70-100°A
		b	100-150°A
3	What is the thickness of cell membrane?	c	30-60°A
		d	10-20°A
			Growth
	Til	a	
4	The properties of cell that are equated with those of life	b	Reproduction
	includes.	С	Metabolism
		d	All
		a	Hypoplasia
5	Failure of a tissue or organ to develop is called.	b	Aplasia
		С	Neoplasia
		a	Osmosis
6	Following processes can occur across the cell membrane at	b	Active transport
U	the same time.	С	Both
		d	None of them
	The process of taking dissolved material into the substance of the cell is called.	a	Phagocytosis
7		b	Pinocytosis
7		С	Absorption
		d	Diffusion
		a	Phagocytosis
0	The process by which cell can take in fluid and molecules	b	Pinocytosis
8	too large to be carried across the plasma membrane by	С	Absorption
	active transport is called	d	Diffusion
		a	Secretion
	If useful products are released from the cell. The process is	b	Excretion
9	called	С	Sweating
		d	Urination
		a	Alkalosis
		b	Acidosis
10	Neural excitability is not affected by	c	Neutral
		d	None of them
		a	Glycine
		b	GABA
11	Inhibitory transmitters may be	c	Both
		d	None of them
		-	Magnitude
		a	Duration
12	Action potential in nerve fibers differ in	b	Both
		C	
		d	None of them
		a	Cardiac muscle
13	Homeostasis is controlled by regulating the activity of	b	Smooth muscle
		С	Gland
		d	All

		0	Water content
	Hygrometer is used to measure the	a b	Protein contents
14		b	
		С	Lipid contents
		d	Mineral contents
	What is a second	a	0.8%
15	What percent solution of NaCl is considered isotonic to	b	0.85%
	mammalian RBCs?	С	0.90%
		d	0.95%
		a	Isotonic
16	If a bathing fluid has a lower osmotic pressure than the cell,	b	Hypotonic
	it is called	c	Hypertonic
		d	All
		a	Isotonic
17	If a bathing fluid has higher osmotic pressure than the cell it	b	Hypotonic
1/	is called [	c	Hypertonic
		d	All
		a	Conductivity
10	The appropriate of height able to consider a size of the in-	b	Irritability
18	The property of being able to react to a stimulus is called.	c	Contractility
		d	Transmission
		a	K
		b	Na
19	Which ion is found in greater concentration inside the cell?	c	Cl
		d	HCO3
	Rough endoplasmic reticulum is involved in the synthesis of	a	Glycogen
		b	Protein
20			Steroids
		d d	Lipids
			Ribosome
	Matabalia water is the water concreted in all call of the	a b	
21	Metabolic water is the water generated in all cell of the body by	b	Mitochondria Colgi bodies
		c	Golgi bodies
		d	Centrosome
		<u>a</u>	Water
22	The second largest constituent of protoplasm is	b	Proteins
		c	Lipids
		d	Inorganics
		a	Hair
23	Some proteins serve as structural element in	b	Wool
-5	F	С	Horn
		d	All of them
		a	Biology
24	Cell physiology includes application of most of laws of	b	Chemistry
	which subjects.	c	Physics and Chemistry
		d	Physics
		a	Collagens
25	Which protein represent about 30% of the total protein	b	Elastins
25	content of the animal body.	С	Keratins
		d	Fibrin
		a	Enzymes
		b	Hormones
26	Reactive proteins include	c	Globulins of blood
		d	All
		a	Triglycerides
		b	Waxes
27	Lipids includes		Prostaglandins
		d d	All
		u	All

			Combohyduoto
	RNA is intimately associated with synthesis of which constituent of the cell.	a	Carbohydrates
28		b	Proteins
		C	Lipids
<u> </u>		d	Inorganics
		a	35%
29	How much percentage of inorganic material is contained in	b	45%
	bones.	С	55%
		d	65%
		a	Fe
30	Which mineral is an essential part of thyroxin?	b	Mg
		c	Iodine
		d	Na
		a	Glycogen
31	Smooth endoplasmic reticulum is involved in the synthesis	b	Lipids
	of	С	Steroids
		d	All
		a	Mitochondria
32	Oxidase enzymes responsible for producing H <sub>2</sub> O <sub>2</sub> are	b	Ribosomes
~~	present in	С	Peroxisomes
		d	Polysomes
		a	in the movement of fibroblasts in heart
33	Microfilaments may assist	b	growth of axons
		c	contraction of all muscle
		d	all
	Centriole consists of how many paired filaments	a	5
		b	7
34		c	9
		d	11
	The tip compared to	a	80 days
25		b	100 days
35	The life span of RBC is of	c	120 days
		d	140 days
		a	RNA
26	Demined discrete and the	b	DNA
36	Pyrimidine thymine occurs only in	c	Both
		d	All
		a	RNA
27	Demined discourse it account on the for	b	DNA
37	Pyrimidine uracil occurs only in	С	Both
		d	None of them
		a	Guanine
20	Adanina is always paired with	b	Cytosine
38	Adenine is always paired with	С	Thymine
		d	Uracil
		a	Adenine
20	Guanina is always paired with	b	Cytosine
39	Guanine is always paired with	С	Thymine
		d	Uracil
		a	RNA
40	During starvation of cell, the amount of following may	b	Protein
40	decrease	С	Both
		d	None of them
		a	GABA
41	The following are neurotransmitters in the autonomic	b	Noradrenaline
41	ganglia:	c	Acetylcholine
		d	5 HT
1	<u>,                                      </u>		i

		-	In healthy needs it is maintained
		a	In healthy people it is maintained
		1.	between 7.4 and 7.5
42	True statements about the pH of the extracellular fluid:	b	Is increased in hypovolemic shock
		c	Increases following a cardiac arrest
		d	Influences the binding of drugs to
			plasma proteins
		a	Reabsorption of all glucose
43	The following occur in the proximal tubules of the nephron:	b	Reabsorption of most water
13	The renewing event in the premium the bles of the hopmon	С	Active reabsorption of sodium
		d	All of these
		a	Involves in phase I metabolic
			reactions
44	Cytochrome P450 is:	b	Found in lysosomes
		С	Found in ribosomes
		d	Found in mitochondria
		a	Increases the release of aldosterone
		b	Reduces renin release from the
45	Actions of angiotensin II include:		kidney
		С	Promotes micro albuminuria
		d	All of these
		a	Anti-diuretic hormone (ADH)
			increases the permeability of
	In a normal nephron:		collecting ducts to water
		b	All the filtered glucose is re-absorbed
46			in the proximal tubule
		С	Nearly all the filtered protein is
		-	reabsorbed in the proximal
			convoluted tubule
		d	All of these
		a	Hemicholinum
		b	Venom of black widow spider
47	The release of acetylcholine is blocked by:	c	Cocaine
		d	Botulinum
		a	Decreases the osmolarity of urine
		b	Decreases the volume of urine
		c	Increases the reabsorption of water in
48	Antidiuretic hormone:	C	the proximal tubules
		d	Is synthesized in the posterior
		u u	pituitary gland
<u> </u>		0	is inhibited by atropine
		a b	is decreased by vagal stimulation
49	Insulin secretion:		is inhibited by amino acids
		С	
		d	is stimulated by beta agonists
		a	Is higher in female than male
<b>50</b>	D 1 2 2	b	Is inhibited by dopamine
50	Prolactin secretion:	С	Is increased in patients taking
			phenothiazines
<u> </u>		d	all above
		a	it requires DNA polymerase
		b	reverse transcriptase enzymes are
51	The following are true about DNA synthesis:		involved
	The following are true about DNA synthesis:	С	moves in a 3'> 5' direction
		d	the rate of error in DNA synthesis is
			1 in 10 <sup>5</sup> base pairs

	T		
		a	they contain adenine, cytosine,
			guanine and uracil bases
		b	they can be detected with Western
52	With regard to DNA molecules:		blotting
		С	they can be detected with Southern
			blotting
		d	None of these
		a	are activated by the binding of an
			extracellular ligand to a membrane
			receptor
53	G-proteins:	b	mediate the action of glucocorticoid
	Francis		hormone
		С	they are inactivated by cholera toxins
		d	None of these
		a	it occurs in liver
		b	
54	The following is true about gluconeogenesis:		it occurs in kidney
		С	it occurs in adipose tissue
		d	Both (a) and (b)
		a	they are often glycoproteins
		b	they are important for hormones
55	With regard to membrane recentors for hormones:		made up of steroid
33	With regard to membrane receptors for hormones:	С	those for insulin exhibit an intrinsic
			protein kinase activity
		d	Both (a) and (c)
		a	Decreased albumin concentration in
	The following factor(s) tend(s) to INCREASE the rate of glomerular filtration (GFR):		plasma
		b	Vasodilation of the afferent (pre-
56			glomerular) arteriole
30		С	Vasoconstriction of the efferent
		C	
			(post-glomerular) arteriole
		d	All are correct
		a	plasma sodium concentration
57	Aldosterone secretion is not controlled by:	b	plasma calcium concentration
		С	plasma potassium concentration
		d	angiotensin II
		a	the lysozyme in the tear film is
			increased
58	In management	b	the intraocular pressure is lower than
38	In pregnancy:		pre-pregnancy state
		С	accommodation is decreased
		d	all above
		a	renal disease
		b	steroid therapy
59	The following may cause an elevated blood urea:	_	dehydration
		c	
		d	all above
		a	increased potassium loss
60	The following occur in response to a major surgery:	b	increased protein breakdown
55	surgest in response to a major surgery.	c	sodium and water retention
		d	all above
<del></del>		a	an alkaline urine
		b	fall in the plasma bicarbonate
61	Hyperventilation causes:		concentration
~ -	71	С	increased cardiac output
		d	all above
			elevated intraocular pressure
		a	
62	Bradycardia can occur in response to:	b	ocular massage
Í		С	pulling of the extra ocular muscle
		d	all above

		_	and the anti-city and the Cat
		a	assess the extrinsic pathway of the
		,	blood coagulation cascade
63	The prothrombin time	b	is prolonged in patients with fat
			absorption
		c	is increased by warfarin
		d	all above
		a	venous constriction
64	In human being, hemorrhage causes	b	decreased blood flow to the skin
04	in numan being, nemorriage causes	c	a fall in cardiac output
		d	all above
		a	Blood vessels, tissue fluids
<i>(5</i>	The respiratory system exchanges gases between the	b	Air in lungs, blood
65	and the	c	Air in lungs, air in organs
		d	Tissue fluid, blood
		a	O <sub>2</sub> , PO <sub>4</sub>
	In the lungs, gas enters the blood and gas exits	b	$CO_2$ , $H_2O_4$
66	the blood.	С	$CO_2, O_2$
		d	O <sub>2</sub> , CO <sub>2</sub>
		a	is characterized by hyperuricaemia.
		b	causes scleritis
67	Gout:	c	patient with gout should avoid eating
07	Gout.	C	offal
		d	all above
			antigen-specific function is the role
	The following are true about cell-mediated immunity:	a	
		1 <sub>a</sub>	of the T-lymphocytes cell-mediated immunity can activate
		b	•
68			the complement system
		С	it is responsible for the delayed
			hypersensitivity reaction.
		d	Gamma interferon is an important
			mediator of B-cell activation.
		a	polymerase chain reaction
	TTI C II	b	antibodies by enzyme-linked
69	The following are useful in the diagnosis of HIV infection:		immunoadsorbent assay
		С	P24 protein assay
		d	all above
		a	thromboxane -leukocyte activation
		b	prostaglandin-2 - vasodilatation
70	The following are true about chemicals involved in allergic	c	platelet-activating factor - leukocyte
	reaction:		activation
		d	heparin - augments inactivation of
			prostaglandins
		a	persistent lymphopenia
		b	decreased interleukin-2 production
71	In AIDS, the following abnormalities are seen:	c	impaired delayed cutaneous
			hypersensitivity reactions
		d	all above
		a	include guanine
72	Purines:	b	are metabolized to uric acid
72	1 urnes.	c	are mainly synthesized in the liver
		d	all above
		a	is essential for the metabolism of
			folic acid in the humans
		b	is attached to a glycoprotein in the
73	Vitamin B12:	_	circulation
		С	its deficiency is characterized by
		-	hypersegmentation of the neutrophils
		d	all above
L	1	u	uii uoovo

		a	is water soluble
		b	is absorbed in the stomach
74	Folic acid:	С	deficiency leads to aplastic anaemia
		d	deficiency occurs with methatrexate
			treatment
	Prostaglandins:	a	contains 20 carbon atoms
		b	are unsaturated fatty acids containing
			a cyclopentane ring
75		c	the different types of prostaglandins
/3			are classified according to the
			configuration of the cyclopentane
			ring
		d	all above

**Keys MCQs Section A: Physiology** 

No.	Answer	No.	Answer	No.	Answer
1	С	26	D	51	A
2	D	27	D	52	С
3	A	28	В	53	A
4	D	29	D	54	D
5	В	30	С	55	D
6	С	31	D	56	D
7	С	32	С	57	В
8	В	33	D	58	D
9	A	34	D	59	D
10	D	35	С	60	D
11	С	36	В	61	D
12	С	37	A	62	D
13	D	38	С	63	D
14	A	39	В	64	D
15	В	40	С	65	В
16	В	41	С	66	D
17	С	42	D	67	D
18	В	43	D	68	В
19	A	44	A	69	D
20	В	45	D	70	В
21	В	46	D	71	D
22	В	47	D	72	D
23	D	48	В	73	D
24	С	49	A	74	A
25	A	50	D	75	D

## MCQs Section B: Pharmacology

No.	Question	Choice	Answer
		a	Nor-epinephrine
1		b	Histidine
	Histamine is synthesized from;	С	Nor-adrenaline
		d	Epinephrine
		a	Neurotransmitter
		b	Autacoids
2	Prostaglandin is;	С	Endocrine hormone
		d	Steroid hormone
		a	Histamine
		b	Epinephrine
3	Arichidonic acid is precursor of;	С	Prostaglandins
		d	Nor-epinephrine
		a	Monoamine oxidase enzyme
		b	Cyclooxygenase enzyme
4	Aspirin acts as analgesics and antipyretic by inhibiting;	c	Carbonic anhydrase enzyme
		d	Lipooxygenase enzyme
		a	All or non response
		b	Increase the intensity of action
5	Quantal dose response relationship refers to;	c	Decrease the intensity of action
		d	All above
	Potency of a drug means;	a	Action of drug by a dose
		b	Activity of drug per unit mass
6		c	Activity of a drug molecule
		d	Activity of drug per unit area
		a	Potency of a drug
		b	Intrinsic activity of a drug
7	Efficacy refers to;	c	Safety of a drug
		d	Binding capacity of drug
		a	Ordinary graph paper
	For computing kinetic parameters the concentration versus	b	Plane paper
8	time data is plotted on;	c	Semi log graph paper
	time data is protect on,	d	Log graph paper
		a	Pharmacotherapy
	The discipline of pharmacology dealing with mode of	b	Pharmacy
9	action of drug is known as;	c	Pharmacodynemics
	action of drug is known as,	d	Phamacognosy
		a	Mechanism of action of drug
		b	Preparation of drug
10	Pharmacy deals with;	c	Identification of drug
		d	Metabolism of drug
		a	Instruction for pharmacist
		b	Instruction for the user
11	Subscription carries;	С	Instruction for the prescriber
		d	Instruction for the doctor
		a	Pain killer
		b	Sleep inducing agents
12	Soporifics are;	С	Antipyretics
		d	Anesthetics
		a	Epidural administration
		b	Administration into C.S.F
13	Intrathecal administration of drug means;	c	Intraoccular
		d	Intracranial
L			muaciamai

14   In epidural administration drug is administered;   b   Above the durameter   c   Below the durameter   d   Into the durameter   d   Into the durameter   d   Into the durameter   a   Barbiturates   b   Sulfonic acid   d   Sulfadiazine   d   Sulfadiazine   d   Sulfadiazine   d   Sulfadiazine   d   Sulfadiazine   d   Sulfadiazine   d   More lipophilic   d   More polar than parent drug   d   All of the above   d   All the antibiotics are antibiotics are   d   All the antibiotics are antibiotics   d   All of the above   d   A			1 -	: A CCE
1				
Derivatives of sulfanilamides are called;  Derivatives of sulfanilamides are antibacterial are antibiotics are;  Derivatives of sulfanilamides are antibiotics are;  D	14	In epidural administration drug is administered;		
Derivatives of sulfanilamides are called;   Derivatives of sulfanilamides				
Derivatives of sulfamilamides are called;   Sulfonic acid   C   Sulfonamide   Sulf			-	
Derivatives of sulfanlamides are called;   C   Sulfonamide				II.
Metabolite of drug may become;   Decrease the excretion of drugs	15	Derivatives of sulfanilamides are called;		
Metabolite of drug may become;   a   More lipophilic				II.
Metabolite of drug may become;   b   More polar than parent drug   c   Non polar than parent drug   d   All of the above   a   By changing it to more active   b   By converting polar drug to polar   c   By converting polar drug to non polar   d   None of the above   a   Easily by kidney   c   Normally by kidney   d   Rapidly by the Kidney   d   Decrease the bioavailability of the drugs   d   Decrease the excretion of drugs   d   All of the above   d   In sink   d   All of the above   d   In sweat   d   All the antibacterial are antibiotics   d   All the antibacterial are obtained   from living organizary   d   Bacteriodatic only   d   Drugs give their action;   d   Drugs give th			-	
C   Non polar than parent drug				
Biotransformation of drug facilitates excretion of drug:    Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion of drug:   Biotransformation of drug facilitates excretion;   Biotransformation of drug facilitates excretion of drug facilitates excretion of drugs     Biotransformation of drug facilitates excretion;   Biotransformation of drug facilitates excretion of drug fa	16	Metabolite of drug may become;		
Biotransformation of drug facilitates excretion of drug;  Polar substances are excreted;  Polar substances are excreted;  Biotransformation of drug facilitates excretion of drug;  Biotransformation of drug facilitates excretion of drug;  Biotransformation of drug facilitates excretion;  Biotransformation of drug facilitates excretion of drug;  Biotransformation of drug facilitates excretion;  Biotransformation of drug facilitates excretion of drugs and facilitates the bioavailability of the drugs and facilitates and facilita				
Biotransformation of drug facilitates excretion of drug;   Composition of the polar drug to polar composition of the polar drug to polar composition of the polar drug to polar drug to polar composition of the polar drug to non polar drug to polar drug to polar drug to non polar dru			_	I .
Biotransformation of drug facilitates excretion of drug;   C   By converting polar drug to non polar				
C	17	Biotransformation of drug facilitates excretion of drug;		
Polar substances are excreted;   Billiary excretion drug refers to excretion;   Consider the formula of the arms of the formula of the arms of the formula of the arms of th		2		
Polar substances are excreted;   b   Slowly by kidney   c   Normally by kidney   d   Rapidly by the Kidney   d   Rapidly by the Kidney   a   Increase the bioavailability of the drugs   b   Decrease the bioavailability of the drugs   c   Increase the excretion of drugs   d   Decrease the excretion of drugs   d   Decrease the excretion of drugs   a   Absorption of drug   b   Metabolism of drug   c   Drug administered I/V may excrete in faeces due to;   Due to entero-hepatic circulation   d   All of the above   a   In urine   b   In milk   c   In faeces   d   In sweat   a   All the antibacterial are antibiotics   b   All the antibacterial are obtained from living organism   d   All the antibiotics are antibiotics are antibiotics   a   Bacteriostatic and bactericidal   d   None of the above   a   Bacteriostatic and bactericidal   d   None of the above   a   Due to their specific receptor only   b   Due to non receptor mediated   mechanism only   c   Due I and 2   d   Due to metabolism of drug   a   Blood pressure is increased to high limit   b   Blood pressure is increased to high limit   c   Notting happen to blood pressure   c   C   C   C   C   C   C   C   C   C			d	
Polar substances are exerted;				
19   1st pass effect;   20   20   20   20   20   20   20   2	18	Polar substances are excreted:	b	
19 1st pass effect;    Decrease the bioavailability of the drugs	10	1 our succession are choreces,		, , ,
19			d	
19				
1 pass effect;   drugs		1 <sup>st</sup> pass effect;		
Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug to entero-hepatic circulation  d All of the above  a In urine  b In milk  c In faeces  d In sweat  a All the antibacterials are antibiotics  b All the antibacterials are antibiotics  b All the antibiotics are antibacterial  c All the antibiotics are antibacterial  d All the antibiotics prepared in laboratory  a Bactericidal only  b Bacteriostatic only  c Bacteriostatic only  c Bacteriostatic and bactericidal  d None of the above  a Due to their specific receptor only  b Due to non receptor mediated mechanism only  c Due I and 2  d Due to mentabolism of drug  a Blood pressure is increased to high limit  b Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure	19		b	•
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Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug to entero-hepatic circulation  d All of the above  a In urine  b In milk  c In faeces  d In sweat  a All the antibiacterials are antibiotics  b All the antibiotics are antibacterial  c All the antibiotics are antibacterial  d All the antibiotics prepared in laboratory  a Bacteriostatic and bactericidal only  b Bacteriostatic only  c Bacteriostatic and bactericidal  d None of the above  a Due to their specific receptor only  b Due to non receptor mediated mechanism only  c Due 1 and 2  d Due to metabolism of drug  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure				
Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug administered I/V may excrete in faeces due to;  Drug the administered I/V may excrete in faeces due to;  Drug the administered I/V may excrete in faeces due to;  Drug factority  Drug factority  Drug give their action;  Drug factority  Drug factor			d	
Drug administered I/V may excrete in faeces due to;    C		Drug administered I/V may excrete in faeces due to;		
21 Billiary excretion drug refers to excretion;  22 Billiary excretion drug refers to excretion;  23 All the artibiotics are;  24 Drugs give their action;  25 In anaphylactic shock due to drug;  26 Due to hentero-hepatic circulation definition and in unine  27 Due to hentero-hepatic circulation definition and in unine  28 All of the above and in unine  29 All the antibiotics are antibiotics  20 Bacteriostatic are obtained from living organism describing and all the antibiotics prepared in laboratory  21 Billiary excretion drug refers to excretion;  22 In anaphylactic shock due to drug;  23 All the antibiotics are a	20		b	
Billiary excretion drug refers to excretion;				
Billiary excretion drug refers to excretion;			d	
21 Billiary excretion drug refers to excretion;    C				
22 Tick the true statement;  23 All the antibiotics are;  24 Drugs give their action;  25 In anaphylactic shock due to drug;  26 In sweat  a All the antibiotics are antibiotics b All the antibiotics are antibiotics are antibiotics are antibiotics are antibiotics are antibiotics prepared in laboratory  a Bactericidal only b Bacteriostatic only c Bacteriostatic and bactericidal d None of the above a Due to their specific receptor only b Due to non receptor mediated mechanism only c Due 1 and 2 d Due to metabolism of drug a Blood pressure is increased to high limit b Blood pressure dropped to critical level c Nothing happen to blood pressure	21	Billiary excretion drug refers to excretion:	b	
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Tick the true statement;    Description			d	
Tick the true statement;  C All the antibacterial are obtained from living organism  d All the antibiotics prepared in laboratory  a Bactericidal only  b Bacteriostatic only  c Bacteriosatatic and bactericidal  d None of the above  a Due to their specific receptor only  b Due to non receptor mediated mechanism only  c Due 1 and 2  d Due to metabolism of drug  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure			a	
22 In the true statement;    from living organism     d All the antibiotics prepared in laboratory     a Bactericidal only     b Bacteriostatic only     c Bacteriosatatic and bactericidal     d None of the above     a Due to their specific receptor only     b Due to non receptor mediated     mechanism only     c Due 1 and 2     d Due to metabolism of drug     a Blood pressure is increased to high limit     b Blood pressure dropped to critical level     c Nothing happen to blood pressure			b	
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23 All the antibiotics are;  a Bactericidal only b Bacteriostatic only c Bacteriosatatic and bactericidal d None of the above a Due to their specific receptor only b Due to non receptor mediated mechanism only c Due 1 and 2 d Due to metabolism of drug a Blood pressure is increased to high limit b Blood pressure dropped to critical level c Nothing happen to blood pressure	22	Tex the true statement,		
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24 Drugs give their action;  25 In anaphylactic shock due to drug;  26 Bacteriosatatic and bactericidal d None of the above  a Due to their specific receptor only b Due to non receptor mediated mechanism only  c Due 1 and 2  d Due to metabolism of drug  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure	23	All the antibiotics are:	b	
24 Drugs give their action;  24 Drugs give their action;  25 In anaphylactic shock due to drug;  a Due to their specific receptor only b Due to non receptor mediated mechanism only c Due 1 and 2 d Due to metabolism of drug a Blood pressure is increased to high limit b Blood pressure dropped to critical level c Nothing happen to blood pressure		in the antiblotics are,		
Drugs give their action;  b Due to non receptor mediated mechanism only c Due 1 and 2 d Due to metabolism of drug a Blood pressure is increased to high limit b Blood pressure dropped to critical level c Nothing happen to blood pressure		_	d	
24 Drugs give their action;			a	
c Due 1 and 2 d Due to metabolism of drug  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure			b	
d Due to metabolism of drug  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure	24	Drugs give their action;		
25 In anaphylactic shock due to drug;  a Blood pressure is increased to high limit  b Blood pressure dropped to critical level  c Nothing happen to blood pressure			С	
In anaphylactic shock due to drug;    Solution   Description   Description			d	
25 In anaphylactic shock due to drug;  b Blood pressure dropped to critical level c Nothing happen to blood pressure			a	Blood pressure is increased to high
25 In anaphylactic snock due to drug; level  c Nothing happen to blood pressure				
c Nothing happen to blood pressure	25	In anaphylactic shock due to druge	b	Blood pressure dropped to critical
	23	In anaphylactic shock due to drug;		
d None of the shows			С	
d None of the above			d	None of the above

		0	Weighing and measuring of drug
		a b	Dose and dosage
26	Posology deals with;	_	Metabolism of drugs
		c d	
			Development of drug
		a	Local anesthetics
27	Ice burge theory explains the mode of action of;	b	All general anesthetics
		С	Volatile general anesthetics
		d	a and b
		a	Inhibition of protein synthesis
28	Penicillin gives their bactericidal action due to;	b	Inhibition of nucleic acid synthesis
	6	С	Inhibition of cell wall synthesis
		d	Inhibition of cell membrane synthesis
		a	Protein synthesis inhibition
29	Sulfonamide give their bacteriostatic action due to;	b	Competing antimetaolite
	Sanonamide give their bacteriostatic action due to,	С	Cell wall synthesis inhibition
		d	nucleic acid synthesis inhibition
		a	Over days
30	Tachynhylavic dayalone	b	Over weeks
30	Tachyphylaxis develops;	С	Within minutes
		d	Over Years
		a	Increase rate of metabolism of drug
21	Tolerance to drug may develop due to;	b	Decrease rate of metabolism of drug
31		c	Decrease in the excretion of drug
		d	Impaired excretion of drug
	Tachyphylaxis may develop due to;	a	Increase rate of metabolism of drug
		b	Exhaustion of mediators
32		c	Decrease rate of metabolism of drug
		d	All of the above
		a	Sympathetic nervous system
		b	Parasympathetic nervous system
33	Acetylcholine is a chemical mediator at;	c	None of the above
		d	All of the above
		a	Aryl amine
		b	Acetate
34	Prontosil is reduced to in the body;	c	Sulfanilamide
		d	Sulfamethazone
		-	Nor epinephrine
		a b	Neostigmine Neostigmine
35	Acetate and choline are metabolite of;		Acetyle choline
		c d	Epinephrine
			Butanol
	Charal hydrata is converted into hydratalization	a b	
	Choral hydrate is converted into by the liver which is an active metabolite;	b	Trichlorocatio gold
	an active metabonie,	С	Trichloroacetic acid
		d	All of the above
		a	Cat
37	Glucoronide conjugation is missing in;	b	Dog P:
		С	Pig
		d	Horse
		a	Cat
38	Sulfate conjugation is of low level in;	b	Pig
		С	Dog
		d	Horse
		a	Oxidation
39	Sulfonamide are metabolized in the body by the reaction;	b	Reduction
			la
39	barronamide are metaconized in the cody by the reaction,	С	Acetylation All of the above

		a	Over dose
	Drug allergy refers to those situations in which unusual	b	Wrong rout of administration
40	response is due to;	c	Antigen-antibody reaction
	Toponso is due to,	d	Hypersensitivity
		a	Epithelial cells
		b	Eosinophils
41	Histamine is stored in the following cell in the body;	c	Mast cells and basophis
		d	Plasma cells
		a	Immunological basis
		b	Genetic abnormality
42	Idiosyncracy is attributable to;		Over dose of a drug
		d d	Resistance to drug
		-	More ionized and less lipid soluble
	Distance Connection Contract the contract of the contract	a	-
43	Biotransformation facilitates the excretion of drugs by	b	Less ionized and more lipid soluble
	changing them into;	c	More ionized and more lipid soluble
		d	less ionized and less lipid soluble
		a	Tannins
44	Basic nitrogenous substances available in plants are	b	Glucoside
• •	exploited for their pharmacological actions are known as;	С	Alkaloids
		d	Saponins
	Styptics are used to prevent;	a	Minor hemorrhages
45		b	Clotting of blood
		c	Perfuse hemorrhages
	Oxidative reactions are called;	a	Synthetic reaction
1.0		b	Non synthetic reaction
46		С	Conjugation reaction
		d	Acetylation reaction
		a	Antagonism
	When a drug potentiates or complements the action of other drug the phenomenon is called;	b	Drug interaction
47		c	Synergism
		d	Summation
		a	Inert
	The substances added to a dosage form in addition to active	<u>в</u> b	Excipient
48	ingredients are called;		Recipient
	ingredients are caned,	d d	Polar
			Emulsions
	Hand solid assessment as smalled to ship and as a sleet and	<u>a</u>	
49	Hard solid preparation applied to skin under a cloth are	b	Lotions
	leather covering are known as;	c	Plasters
		d	Cream
		a	Aerosole
50	The drug preparations which are used by licking are;	b	Dragee
	Or	С	Linctures
		d	Lotions
		a	Upto
51	Ad lib means;	b	As desired
J1	Ad no means,	c	Minimum
		d	Less than desired
	The marketing of the second of	a	Pinocytosis
<b>5</b> 0	The mechanism of transport of drug which work like active	b	Passive diffusion
52	transport but the drug does not more against concentration	c	Facilitated diffusion
32	gradient;	d	Endocytosis
32	gradient,	(I	
<i>J2</i>	gradient,		·
		a	Decrease the half life
53	Hepatic and renal diseases		•

		a	Drug absorption is decreased
		b	Drug absorption increased  Drug absorption increased
54	If the gut motility is increased then;	c	Drug absorption is not affected
		d	All of the above
		a	The small intestine
		b	The large intestine
55	The rate of drug absorption is greatest in;	c	The stomach
		d	Plasma
		a	Highly vascular organs a drug slowly
		b	Highly vascular organ rapidly acquire
			a drug
56	Drug distribution may depend on tissue perfusion;	С	Levels of drug in bone may rise
			quickly due to its high vascularity
		d	None of the above
		a	The kidneys
		b	The kidneys  The bile
57	Most drugs and metabolites are excreted by;	c	The lungs
		d	The saliva
		a	The way in which the drug affects the
		a	body
		b	The effect of drug in the body and
58	Pharmacodynemics considers;	U	mode of action
		С	Drug metabolism
		d	Drug excretion
		a	When too much drug has
	A drug allergy occurs;		accumulated in the body
		b	When body sees the drug as an
			antigen and an immune response is
59			established against the drug
		С	An unwanted but predictable
			response to a drug
		d	An unwanted but unpredictable
			response to a drug
		a	Irreversible
60	The draw recentor interestion is	b	Reversible
60	The drug receptor interaction is usually;	С	Always irreversible
		d	unchanged
		a	Atropine
<i>∠</i> 1	Cholinastrasa anzuma is inhihitad har	b	Organo phosphorus pesticide
61	Cholinestrase enzyme is inhibited by;	С	Pilocarpine
L		d	Nicotine
		a	By increasing osmolarity of tubule
			urine
62	The comotic digratic produces digrasics	b	By decreasing osmolarity of tubule
62	The osmotic diuretic produces diuresis;		urine
		С	Increasing reabsorption of water
<u></u>		d	Decrease osmolarity of blood
		a	Magnesium and sulfate ions are
			rapidly absorbed
		b	Magnesium and sulfate ions are
63	The magnesium sulfate acts as a purgative because;		poorly absorbed
		С	Magnesium ion stimulate protect the
			mucosa
		d	Magnesium ion inhibit peristalsis
1		a	The excretion of epinephrine
61	MAQ inhibitors provents	b	The metabolism of epinephrine
64	MAO inhibitors prevent;		The metabolism of epinephrine The distribution of epinephrine

Acetazolamide produces diuresis;  b By inhibiting C By inhibiting d By stimular	ng carbonic anhydrase ng cholinestrase
Acetazolamide produces diuresis;  c By inhibiting d By stimula	
d By stimula	na M/ A ( )
	and lipophilic drug
	d hydrophilic drug
C Highly folio	
	and hydrophilic drug
	rance of potassium
6/ Rangi function can be actimated by determining:	rance of Na.
c Renal clear	rance of creatinine
d Plasma clea	arance of creatinine
a Dose indep	pendent
b Dose deper	ndent
68 Zero order elimination is; c Both A and	
d None of the	
a Dose indep	
h Dogo danar	
69 1 <sup>st</sup> order elimination is; b Dose deper	
d None of the	
a Albumin	- 400,0
h Globulin	
70 Drugs mainly bind to protein in the body;  c Hemoglobi	in
d Starch	
	cular system
1	cular system
71 H1-receptor of histamines are mainly associated with; system	tular and respiratory
c Stomach	
d Heart	
	a of drug
a Preparation	
	and identification of drugs
c Doses of di	
d Weight and	
	e half life of drug
	e half life of drug
c No effect o	on the half life of a drug
d None of the	
	e half life of a drug
	e half life of a drug
c None of A	
	on the half life of a drug
	e of blood cleared of drug
per unit tin	
b The volume	e of urine coming from
75 Renal clearance of a drug refers; kidney per	
13 Renai Clearance of a urug felets,	e of drug cleared from the
c The volume	
c The volume blood	
c The volume blood	e of drug cleared from the

**Key MCQs Section B: Pharmacology** 

No.	Answer	No.	Answer	No.	Answer
1	В	26	В	51	В
2	В	27	С	52	С
3	С	28	С	53	В
4	В	29	В	54	A
5	A	30	С	55	A
6	В	31	A	56	В
7	В	32	В	57	A
8	С	33	В	58	В
9	C	34	С	59	В
10	В	35	С	60	В
11	A	36	В	61	В
12	В	37	A	62	A
13	В	38	В	63	В
14	В	39	С	64	В
15	C	40	С	65	A
16	В	41	С	66	A
17	В	42	В	67	С
18	A	43	A	68	В
19	В	44	С	69	A
20	C	45	A	70	A
21	C	46	В	71	В
22	В	47	С	72	В
23	C	48	В	73	В
24	C	49	С	74	A
25	В	50	С	75	A

### Theriogenology

## MCQs Section A: Theriogenology

No.	Question	Choice	Answer
	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a	Dopamine
1	In general, hormones are classified as proteins, polypeptides and steroids, which one of the following is a	b	Epinephrine
1		С	Progesterone
	polypeptide	d	Oxytocin
		a	Primary oocyte stage
		b	Secondary oocyte stage
2	In the cow, at the time of ovulation, oocyte will be at:	С	Tertiary oocyte stage
		d	Ootid stage
		a	Progesterone
2	Which of the following hormones are transported in the	b	Testosterone
3	blood in bound form?	С	Estrogens
		d	All of the above
		a	Other animals of other species
			through olfaction
		b	Other animals of the same species
4	Pheromones are hormone like substances that affect	_	through olfaction
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	С	Other animals of the same species
		_	through skin
		d	None of the above
		a	Disparity in uterine horn size
	Rectally palpable positive sign of pregnancy in cattle at 45 days of gestation is	b	Fluid fluctuation in uterine horns
5		c	Presence of a big CL
		d	Presence of Amniotic vesicle
		a	Progesterone
	Functionally, hCG is predominantly like	b	L.H
6		c	Estrogen
		d	FSH
		a	Silent ovulation
		b	Sub ovulation
7	Ovulation without behavioral estrus signs is called as	c	Silent estrus
		d	Diestrus
		a	Monozygotic pregnancy
	When a cow not in true heat is bred through A.I, it will	b	Dizygotic pregnancy
8	result in	c	Non conception
	result iii	d	Delayed conception
		a	Oogonia
		b	Sertoli cells
9	The primary oocytes are differentiated from	c	Myoid cells
	•	d	Connective tissue
		-	Blastomeres
		a b	Cyst
10	The zygote undergoes cell proliferation to form		Blastocytic degeneration
		C	,
		d	Antrum
		a	Mother Temperature of utomic
11	The process of parturition is initiated by	b	Temperature of uterus
	The process of partition is influed by	C	Fetus
		d	Age of the mother
		a	Immunosuppressive properties
12	The early pregnancy factor (EPF) has	b	Immunostimulating properties
		С	Autoimmune properties.
		d	None of the above

		a	Luteal activity
13		b	Maternal activity
	Presence of progesterone in maternal circulation indicates	c	Follicular activity
			Fetal activity
		d a	Porcine follicle stimulating hormone
		b	Purified follicle stimulating hormone
	7777	c	Putrefied follicle stimulating
14	p FSH stands for	•	hormone
		d	Partially purified follicle stimulating
		u	hormone
		a	Estradiol
	Circulating concentration of which hormone is lowest at	b	Progesterone
15	estrus in cow?	c	FSH
	estrus III eo w .	d	LH
		a	Inhibin & estrogen
	Which hormones cause the expression of behavioral signs	b	Estrogen & progesterone
16	of estrus in the cow		Progesterone & GnRH
	of estrus in the cow	c d	LH & FSH
			<u> </u>
		a	Prolongation of the cycle
17	Immunization of a cyclic cow against oxytocin will lead to:	b	Shortening of the cycle
		C	No effect on the cycle
		d	None of the above
	Ovulation in cattle occurs	a	At the beginning of heat
18		b	At the mid of heat
10		С	At the end of heat
		d	10-14 hours after the end of heat
	Sperm capacitation in the cattle mostly occurs in	a	Vagina
19		b	cervix
1)		c	Uterus
		d	uterus and fallopian tube
		a	10 days after conception
20	Length of estrus cycle does not change in cattle if embryo	b	16 days after conception
20	dies	с	17 days after conception
		d	19 days after conception
		a	more potent than natural GnRH
21	Leaves Copy and a forest and	b	less potent than natural GnRH
21	In general, GnRH analogs functionally are	С	equally potent to natural GnRH
		d	None of the above
		a	hypothalamus only
		b	hypothalamus and CL
22	In cattle oxytocin is synthesized in	С	hypothalamus and pituitary
		d	Posterior pituitary
		a	Mullerian
	From which duct of embryo the male reproductive system	b	Wolfian
23	arises?	c	Oviduct
		d	Bile duct
		a	Age only
	The initiation of puberty in bovine is largely a function of	b	Body weight only
24			Both age & body weight
	animals	C d	Climate
		d	
	The first heat of subouted enjoyed in after allow here are	a	Progesterone
25	The first heat of pubertal animal is often silent because of	<u>b</u>	Estrogen
	lack of	C	LH
		d	FSH
		a	5th day
26	In bovine, CL attains maximum size by day of cycle	b	9 <sup>th</sup> to 10 <sup>th</sup> day
		c d	15 <sup>th</sup> day
			189 <sup>th</sup> day

		a	Buffalo
27		b	Camel
	Which of the following animals is an induced ovulator?	c	Bitch
		d	Cow
		a	1-2 days after the start of estrus
		b	1-2 days after the end of estrus
28	What is the time of ovulation in the mare?	c	1-2 days before the end of estrus
		d	1-2 days after mating
		a	High blood progesterone levels
	Which of the followings is necessary for ovulation?	b	Pre-ovulatory LH surge
29	which of the followings is necessary for ovulation:	c	Low blood estrogen levels
		d	None of the above
		a	High blood progesterone levels
		b	Pre-ovulatory LH surge
30	Which of the followings inhibits ovulation?	c	High blood estrogen levels
		d	High blood glucose levels
	What is the average duration of acting period in the buffelo	a b	21 days 42 days
31	What is the average duration of estrus period in the buffalo?		17 days
		c d	None of the above
-			Maternal caruncles and fetal
	Placentomes are formed by the fusion of:	a	cotyledons
		b	Maternal cotyledons and fetal
32		U	caruncles
		С	Both A and B
		d	None of the above
		-	Primordial follicle
	The first follicle formed in the fetal ovary is called as:	a b	Primary follicle
33		С	Secondary follicle
		d	Graafian follicle
		a	Acrosine
	Which enzyme(s) play major role in the passage of sperm	b	Corona Penetrating enzyme
34	through Zona Pellucida during fertilization?	С	Lypase
	through Zona Penucida during fertifization?	d	Hyaluronidase
		a	6-7 days after fertilization
		b	9-11 days after fertilization
35	When does Zona hatching occur in a bovine embryo?	c	14-16 days after fertilization
	-	d	18-20 days after fertilization
-		a	Trophoblast
	The three garm levers of the ambure dl f	b	Embryoblast
36	The three germ layers of the embryo develop from:	С	Both A and B
			None of the above
		d	Diffuse
		a b	Zonary
37	What is the type of placenta in a cow?	c	Discoid
		d	Cotyledonary
		-	Sheep
	In which species 00% programmy occurs in the left utaming	a b	Goat
38	In which species 99% pregnancy occurs in the left uterine		Camel
	horn	c d	Buffalo
		-	Sloughing of caruncles
	The main mechanism involved in elimination of the	a b	
39	The main mechanism involved in elimination of the bacteria from infected postpartum uterus is:		Phagocytosis Low estrogenic activity
		C	Low estrogenic activity
		d	High progesterone blood level

		a	From parturition to next calving
		b	From one conception to next
40	Service period is defined as the period	U	conception
	Service period is defined as the period	c	From conception to calving
		d	From parturition to next conception
		a	Start when daylight to darkness ratio
		,	decreases
41	Cyclicity in mare is depending on photo-period and it	b	Start when daylight to darkness ratio
			increases
		С	Day light to darkness ratio is equal
		d	None of the above
		a	Dilation of cervix
42	The first stage of parturition in called as	b	Fixation of cervix
42	The first stage of parturition in canculas	c	Twisting of cervix
		d	Dilation of uterus
		a	15 to 30 minutes
4.0	What is the duration of second stage of parturition in the	b	1.5 hour
43	mare?	С	2-4 hours
		d	24 hours
		a	Pro-estrous
	In which phase of the oestrus cycle uterus is prone to	b	Estrus
44	infection	-	Met-estrous
		С	
		d	Di-estrous
	In the cow during natural mating, the semen is ejaculated in the	a	Uterus
45		b	Cervix
		С	Oviduct
		d	Vagina
	What is the optimum time of insemination in a buffalo?	a	8-10 hours before the start of estrus
46		b	8-10 hours after the end of estrus
40		c	12-15 hours after the start of estrus
			None of the above
		a	Expulsion of fetus
	and a second	b	Expulsion of placenta
47	The 2 <sup>nd</sup> stage of parturition is called as	С	Expulsion of embryo
		d	Expulsion of calf
		a	Delivery of single calf
		b	Retention of fetal membranes
48	The involution of uterus in cattle can be delayed due to:		Uterine prolapse
		c d	Both B and C
	Joining point of the fallopian tube with uterine horn is	a	Ampullary-isthmic junction
49	called as:	b c	Utero-tubal junction
-	canca as.		Utero-ovarian junction
		d	Utero-vaginal junction
		a	310 weeks
50	What is the average length of gestation in a buffalo?	b	280 days
50	what is the average length of gestation in a bullato?	c	340 days
		d	310 days
		a	Prostaglandin F2a
		b	Estradiol
51	The corpus luteum is a principal source of:	c	Testosterone
		d	Progesterone
		a	2 1-30 days after foaling
		b	2 1-30 days after foaling
52	In the mare, foal heat occurs:	С	
			7-13 days after foaling
			7-13 hours after foaling

		0	100% of its mature body weight
53		a b	30% of its mature body weight
	At puberty, a female attains about:	c	90% of its mature body weight
			60% of its mature body weight
			·
		a	Corpus luteum sporium
54	A corpus luteum of pregnancy is also known as:	b	Corpus luteum verum
		С	Corpus haemorrhagicum
		d	Corpus albican
		a	30 <sup>th</sup> day of gestation
55	In a pregnant cow, placentomes can be palpated per rectum	b	75 <sup>th</sup> day of gestation
	as early as:	С	90 <sup>th</sup> day of gestation
		d	120 <sup>th</sup> day of gestation
		a	Theca interna
56	Ovarian cells that respond to FSH are	b	Granulosa
	Ovarian constitue respond to 1511 are	c	Interstitial ovarian cells
		d	Theca externa cells
		a	Fatty acid
57	What is the shamised nature of CaDII?	b	Polypeptide
57	What is the chemical nature of GnRH?	С	Steroid
		d	Glycoprotein
		a	FSH and LH
<b>5</b> 0		b	LH only
58	The inhibin hormone selectively suppresses the secretion of	С	FSH only
		d	eCG
	Oxytocin is stored in:	a	Neurohypophysis
		b	Adenohypophysis
59		c	Hypothalamus
		d	None of the above
		a	FSH
	Which is the main luteolytic hormone in mammals?	b	LH
60		c	eCG
		d	PGF2a
		-	Anterior Pituitary
		a b	Posterior Pituitary
61	Which gland secretes melatonin hormone?		·
		С	Thymus Pineal
		d	
	Francisch annual annual and a state of the s	a	Ectoderm
62	From which germ layer of embryo internal reproductive	b	Mesoderm
	organs develops?	С	Endoderm
		d	Trophoblast
		a	Testis
63	Fructose, a source of energy for spermatozoa, is found	b	Epididymis
	primarily in secretions from the	С	Prostate
		d	Seminal vesicles
		a	0.5-2 ml
64	Average ejaculation volume in a normal adult ram is	b	3-4 ml
07	11101450 Gacaiation volume in a normal adult fam is	c	5-10 ml
		d	None of the above
		a	1 billion
65	Recommended number of motile spermatozoa per dose of	b	10 million
63	liquid semen is:	С	40 million
	¥	d	70 million
		a	Androstenidione
	The primary circulating androgen in animal body is	b	Testosterone
66		c	Dihydrotestosterone
			Estradiol
		d	200.00101

		a	Acrosine
67	The sac-like organelle on the anterior portion of the sperm head is known as	b	Acrosome
		c	Acrocentric
	neud is known as		Lysosome
		d a	Azoospermia
		b	Haemospermia
68	Absence of sperm in the semen is called	c	Anspermia
		d	Oligospermia
		a	One month after delivery
		b	One month before delivery
69	The descend of testes into scrotum takes place in cattle at	c	100-115 days of gestation
		d	At birth
		a	Absent in dog and cat
		b	Present in dog and cat.
70	The seminal vesicles are	c	Absent in cattle.
		d	Absent in the horse.
		a	Wholly external
		b	Partially external.
71	In the stallion the prostate gland is	c	Half external and half internal.
		d	None of the statements is correct
		a	More than seminal plasma.
_	Spermatozoa contain lactic dehydrogenase enzyme	b	Less than seminal plasma.
72		c	Equal to seminal plasma.
		d	None of the statements is correct.
	Important cat ions of mammalian seminal plasma are	a	Calcium and sodium.
		b	Sodium and potassium.
73		c	Potassium and calcium.
		d	Calcium and magnesium.
		a	Golgi, cap and maturation phases
		b	Golgi, acrosomal and maturation
		U	phases
74	Spermiogenesis has the following phases	С	Cap, acrosomal and maturation
, .	Sperimogenesis mus une 19110 wing primoes		phases
	,	d	Golgi, cap, acrosomal and maturation
			phases
		a	54-63 days
<b>7.</b>		b	64-74 days
75	The duration of spermatogenesis in ram is	c	38-44 days
		d	40-49 days
		a	The tubuli recti
7.	The spermatozoa get ability to move in the	b	Vas efferens
76	, , ,	c	Vas deferens
		d	The epididymis.
		a	265 milliosmoles
77	TIL	b	285 milliosmoles
77	The normal osmotic pressure of seminal plasma is	c	385 milliosmoles
		d	All the statements are incorrect
		a	Estrogen
70	T 1 1 1	b	Testosterone
78	Leydig cells produce	c	FSH
		d	Large quantities of inhibin
		a	Seminiferous tubules
<b>7</b> 0	TTI 1 II Cal	b	Interstitial cells
79	The bulk of the testis consists of	c	Both a and b
			None of the above
	1	d	1

Which function is affected in cryptorchid testis   b. Hormone production   c. Libido   d. Secondary sexual characters   a. Estrogen   b. Hormone production   c. Libido   d. Secondary sexual characters   a. Estrogen   c. Projecterone   c. Projecterone   c. Projecterone   c. Projecterone   c. Projecterone   d. None of the above   a. Spermatogonia   b. Scroli cells   c. Interstitial cells of the testis   d. Connective tissue cells in the testis   d. Co				Snorm production
which of the following hormone is mainly responsible for libido in the male?  Which of the following hormone is mainly responsible for libido in the male?  Which of the following hormone is mainly responsible for libido in the male?  By a spermatogonia  By a structure description of the testis  Contentive tissue cells in th	80		a	Sperm production
Which of the following hormone is mainly responsible for libido in the male?  Which of the following hormone is mainly responsible for libido in the male?  In males, LH receptors are found on the Connective listence cells in the testis of Connective listence cells in the testis cells cells		Which function is affected in cryptorchid testis		-
Which of the following hormone is mainly responsible for libido in the male?   b		,		
Which of the following hormone is mainly responsible for libido in the male?			-	•
Bibido in the male?				
Bibliot in the male?	81	l		
In males, LH receptors are found on the    Seroil cells		libido in the male?		
In males, LH receptors are found on the local material and the setting of connective tissue cells in the testing december of the static levels of			d	
Second color				
Interstitual cells of the testis	82	In males, LH receptors are found on the	b	
Solution	02		c	
In the male LH is also known as:   Chemically, testosterone is a			d	I.
In the male LH is also known as:   C			a	I.
Chemically, testosterone is a  Which of the following compound is a precursor of steroids?  Which of the following compound is a precursor of steroids?  Cholesterol  A Serotion  Two degrees  Dhorne degrees  None of the above  A Freatment of the above  A Evacuation  The termination of pregnancy with the expulsion of a fetus of recognizable size before it is viable is called  The termination of pregnancy with the expulsion of a fetus of recognizable size before it is viable is called  The termination of pregnancy with the expulsion of a fetus of recognizable size before it is viable is called  A Bortion  Treatment of follicular cyst  A During evulation  B Delaying the ovulation time  Cholesterol  Cholesterol  Cholesterol  Cholesterol  Cholesterol  A Serotionin  Two degrees  Dhorne degrees  Chouring evulation  Dhordel ovulation  Delaying the ovulation  Delaying the ovulation time  Cholesterol  Chole	92	In the male I H is also known as:	b	STH
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dose may be determined by    C   Intake of drug by animal	92			
Many drugs are poorly absorbed from the gut such as cephalosporin, polymixins, aminoglycoside and tetracycline c S/C		dose may be determined by		
Many drugs are poorly absorbed from the gut such as cephalosporin, polymixins, aminoglycoside and tetracycline c S/C			d	
93 cephalosporin, polymixins, aminoglycoside and tetracycline c S/C		Many drugs are poorly absorbed from the out such as		
one of the best route is	93	cephalosporin, polymixins, aminoglycoside and tetracycline	b	
d None of the above				
			d	None of the above

		a	High milk production
94		b	Non genetic basis
	The incidence of follicular cyst is associated with	c	Poor nutrition
		d	Season of year
		a	Embryonic loss before implantation
		b	Pyometra Pyometra
95	In cattle, Persistent CL is mostly present due to	c	Use of PGF2a
		d	Regular estrus cycle
		-	
		a	Cotyledons over averted part
0.6	Prolapse of vagina is differentiated from uterine prolapse by	b	No cotyledons over averted part
96	the presence of	c	Occurrence is not possible after
		1	parturition
		d	None of the above
		a	Single
97	A Freemartin heifer is born	b	As co-twin female
		С	As co-twin female + male
		d	As hermaphrodite
		a	Testes
98	Oophoritis is a disease of	b	Spermatic cord
70	Coprioritions is a discuse of	c	Ovary
		d	Fallopian tubes
			Krey's hook
00	Most commonly used instrument for traction in live calve	b	William's long blunt hook
99	is:	С	William's sharp pointed hook
		d	Obstetrical chain
	A four years old bitch has been mated with a fertile dog, developed enlargement of abdomen looking pregnant. If she does not deliver after full term what could the possibility?	a	Normal pregnancy
		b	Pseudo-pregnancy
100		c	Cystic ovaries
		d	None of above
		a	Standing animals
	Left flank incision is the most common technique and most	b	Sitting animals
101	appropriate for	c	Vicious animals
	appropriate for	d	Anaesthetized animals
		a	Fetotomy
		b	Embryotomy
102	The dissection of fetus in the uterus in termed as		Caesarian section
		d d	
			Non of the above
	Francisco de la francia de la	a 1.	Repulsion
103	For per vaginal fetal delivery the basic obstetrical procedure	b	Version
	1S	c	Presentation
		d	Traction
		a	Bovine
104	In which species uterine torsion is a common problem	b	Ovine
	The state of the s	С	Canine
		d	Equine
		a	Near parturition
105	At which stage of pregnancy uterine torsion usually occurs	b	During second trimester
103	The which stage of pregnancy decrine torsion usually occurs	С	During first trimester
		d	Immediately after parturition
		a	Lateral deviation of head
	The most common fatal cause of house doubt his in	b	Flexion of limb
100	The most common fetal cause of bovine dystokia is	с	Transverse presentation
106			_
106		d	Posterior longitudinal presentation
106			Posterior longitudinal presentation Pelvis is compatible with the fetal
106		d a	Pelvis is compatible with the fetal
		a	Pelvis is compatible with the fetal size
106	The traction can be safely applied, when		Pelvis is compatible with the fetal

			Rectification of defect
		a	
108	During handling bovine dystokia for per vaginal fetal	b c	Apply traction
	delivery, the first step should be		Fetotomy
		d	Caesarian section
		a	Obturator nerve
109	Which is the most commonly injured nerve during fetal	b	Sciatic nerve
	traction in bovine dystokia	С	Pudendle nerve
		d	Coccygeal nerve
		a	Equine
110	Wry neck is more common condition in	b	Bovine
		С	Canine
		d	Ovine
		a	Brucellosis
111	High incidence of repeat breeding within 25-35 days after	b	Campylobacterosis
111	service in a cattle herd is commonly due to	c	Trichomoniasis
		d	Salmonelosis
		a	Use Compylobacterosis free bulls for
			service
112	For controlling Compylobacterosis in a cattle herd	b	Use bulls vaccinated against
112	For controlling Compylobacterosis in a cattle nerd		Compylobacterosis
		c d	Use only A.I
			Check every cow before service
		a	Brucellosis
113	Occurrence of abortions with retention of fetal membrane quite commonly in a herd is an indication of	b	Compylobacterosis
113		c	Trichomoniasis
		d	Leptospirosis
	Breeding bulls get Trichomonas infection by	a	Ingestion of infected feed
		b	Drinking contaminated water
114		С	Infected bulls residing in the same
			shed
		d	Serving an infected cow
		a	Salpingitis
115	Inflormation of testis is called as	b	Stomatitis
113	Inflammation of testis is called as:	С	Orchitis
		d	None of the above
		a	Ovaries
116	0.1.1	b	Uterus
116	Salpingitis is the disease of the:	С	Cervix
			Fallopian Tubes
		a	Vagino-cervical
117	Control and one large at the state of the st	b	Uterine
117	Genital prolapse before parturition is also called as:	c	Rectal
			Preputial
		d a	A mummified fetus on rectal
			palpation
		b	Large amount of fluid being a case of
	A 12 years old pregnant cow mated with a bull on farm	Č	hydro-allantois
118	started bloody discharge, during 7th month of pregnancy	c	Prominent amniotic sac with
	what you will expect	•	fluctuating fluid being a case of
			hydro-amnion
		d	A case of brucellosis
	A high milk producing cow in her 3rd lactation shows	a	Cystic corpora lutea
	remarkable long estrus with copious mucus discharge at an	b	Endometritis
119	interval of each 16 days but did not conceive with more than three services. What is the most likely diagnosis?		Follicular cyst
			Ovarian carcinoma
	1	d	O ratium curcimonna

	A . 13 1 10		II.
	A steer like heifer presented with complete an-estrus, small	a	Homozygous twin born
120	vulvular lips. On rectal examination the genital tract was	b	Atrophy of the genital tract
	underdeveloped. What is the most common cause, based on	С	Hypoplasia of ovaries
	the history of heifer?	d	Endornetritis
		a	3 <sup>rd</sup> and 4 <sup>th</sup> sacral vertebrae
121	Epidural anesthesia is best performed by injecting drug	b	Lumbo-sacral space
121	between	c	Sacro-coccygeal space
		d	Sacro-schiatic space
		a	64
100	The Chromosome Number (2N) in domestic cattle (Bos	b	60
122	indicus) is	С	64
	, , , , , , , , , , , , , , , , , , ,	d	58
		a	Vagina
		b	Vestibule
123	In artificial insemination in cattle, the semen is deposited in	c	External os
		d	Body of uterus
			Evaluate the motility of spermatozoa
		a	
		b	Evaluate the structural integrity of
124	A flow cytometric procedure has been developed to		sperm chromatin
		C	Assess the mass activity
		d	Separate sperm bearing X and Y
			chromosome
	In bovine embryo transfer, it is the transfer from donor to the recipient of	a	Unfertilized ovum and insemination
			of recipient
125		b	Fertilized egg
		c	3 month old fetus
		d	Primary oocyte
	The most important single technique devised for the rapid genetic improvement of animals is	a	Rectal palpation
126		b	Artificial insemination
126		С	Sperm sexing
		d	In vitro maturation
		a	Either X or Y chromosome
		b	XY chromosomes
127	The gametes are haploid cells containing	c	XO chromosomes
		d	YZ Chromosomes
		a	5 days apart
	Synchronization of estrus in a group of cattle can be	<u>u</u> b	14 days apart
128	achieved with prostaglandin F-2a if two injections are given		
	achieved with prostagrandin 1°-2a if two injections are given	С	11 days apart
		d	21 days apart
		a	Sheep
129	The first birth of a cloned offspring took place in a	b	Goat
		С	Woman
		d	Cattle
		a	Transcervical
130	The current method of embryo transfer in buffalo is	b	Transabdominal
150		c	Through laparotomy
		d	Through laproscopy
		a	Asymmetry of uterine horns
131	At 35 days of gestation in cattle, palpation of the following	b	Fluid fluctuation in the uterus
131	will confirm pregnancy	С	CL on the ovary
	1 0	d	Presence of amniotic vesicle
		a	30
1.00		b	27
132	The chromosome number in the sperm of horse is	c	33
			32
L		d	1 32

			D : '11' 1000 TTT 1
		a	Penicillin-1000 I.U and
			streptomycin-1 mg per ml of extender
		b	Penicillin 1500 I.U and streptomycin-
133	Standard practice to add antibiotics, penicillin and		2 rng per ml of extender
133	streptomycin in semen extender is at the rate	c	Penicillin 1500 I.U and streptomycin-
			1 mg per ml of extender
		d	Penicillin 2000 I.U and streptomycin-
			1 mg per ml of extender
		a	-165c
104	TTI	b	-180c
134	The temperature of liquid Nitrogen is	С	-196c
		d	-79
		a	4°C for one minute
		b	20°C for five minutes
135	The best temperature for thawing of semen is	c	37°C for 30 seconds
		d	70°C for two minutes
		-	Increase sperm concentration
		a	*
136	Teasing of bull before mounting results in	b	Decrease sperm concentration Increase seminal fluid
		С	
		d a	Decrease prostate secretion
			Artificial vagina
137	Best quality of bull semen may be collected by using	b	Electro-ejaculator
10,		c d	Seminal/Ampullary massage
			None of above method
	Electro-ejaculation is a method of choice in	a	Young healthy bulls
138		b	Trainee bulls
136		c	Old or injured breeding bulls
		d	None of the above
		a	Morula
120	At which developmental stage the bovine embryos are collected for transfer to recipient	b	Hatched blastocyst
139		С	Gastrula
		d	Hatched embryo
		a	Motion mode
	Which is the most commonly used ultrasound display	b	Amplitude mode
140	format in veterinary practice?	С	Brightness mode
	Tormat in vetermary practice:	d	None of the above
		a	Bright
	In B-mode ultrasound, the image of a Graafian follicle will	b	Black
141		_	Grey
	be?	С	·
		d	None of the above
		a	20-30 days of gestation
142	Ultrasonically, bovine fetal sexing is done at:	b	30-40 days of gestation
		c	5 0-60 days of gestation
		d	90-100 days of gestation
		a	Hind limbs and tail
143	In a male fetus, the genital tubercles are located between:	b	Hind limbs and the umbilicus
173	in a maio rotas, the goman taboretes are rocated between.	С	Forelimbs and the umbilicus
		d	Forelimbs and the head
		a	12-15 days after fertilization
1 4 4	In bovines, pregnancy can be detected ultrasonically as	b	20-25 days after fertilization
144	early as:	c	30-35 days after fertilization
		d	50-60 days after fertilization
		a	At 9 days
	Pregnancy diagnosis through milk or plasma progesterone	b	11 days
145	Pregnancy diagnosis through milk or plasma progesterone can be made days after mating		24 days
1	can be made days after mating	C d	•
		d	17 days

	A teaser male is used for:	a	Estrus detection
146		b	Pregnancy testing
140	A teaser male is used for.	c	Natural mating
		d	None of the above
		a	Urination
147	Which of the following is the confirmatory sigh of heat in a	b	Bellowing
147	cow?	c	Stands to be mounted
			Off feed
	Which is the main luteotropic hormone in mammals?	a	Prolactin
148		b	Follicle stimulating hormone
140		С	Lu-teinizing hormone
		d	Gonadotropin releasing hormone
	On a B-mode ultrasound, image of a bone will be	a	Yellow
149		b	Bright
149		c	Blue
		d	None of the above
		a	Urimeter
150	Which of the following is applied for recording of	b	Pedometer
150	movements of a female in heat?	С	Pelvi-meter
			Glucometer

**Key MCQs Section A: Theriogenology** 

No.	Answer	No.	Answer	No.	Answer
1	D	51	D	101	A
2	В	52	С	102	A
3	D	53	D	103	A
4	В	54	В	104	A
5	D	55	В	105	A
6	В	56	В	106	A
7	С	57	В	107	A
8	С	58	С	108	A
9	A	59	A	109	A
10	A	60	D	110	A
11	С	61	D	111	В
12	A	62	В	112	C
13	A	63	D	113	A
14	A	64	A	114	D
15	В	65	В	115	C
16	В	66	В	116	D
17	A	67	В	117	A
18	D	68	A	118	D
19	D	69	C	119	C
20	A	70	A	120	C
21	A	71	A	121	C
22	В	72	A	122	В
23	В	73	В	123	D
24	C	74	D	124	D
25	A	75	D	125	В
26	В	76	D	126	В
27	В	77	В	127	A
28	C	78	В	128	C
29	В	79	C	129	A
30	A	80	A	130	A
31	D	81	В	131	D
32	A	82	C	132	D
33	A	83	A	133	A
34	A	84	D	134	C
35	В	85	В	135	C
36	В	86	В	136	A
37	D	87	D	137	A
38	C	88	D	138	C
39	В	89	C	139	A
40	D	90	В	140	C
41	В	91	D	141	В
42	A	92	A	142	C
43	A	93	В	143	В
44	D	94	A	144	A
45	D	95	В	145	C
46	C	96	В	146	A
47	A	97	C	147	C
48	D	98	C	148	C
49	В	99	В	149	В
50	D	100	В	150	В
	<i>D</i>	100	ر ا	150	ע

# MCQs Section B: Theriogenology / Animal Reproduction

No.	Question	Choice	Answer
		a	96°F
1	m	b	104°F
	Temperature of cow suffering from milk fever is	С	107°F
			110°F
		a	Jugular and maxillary
		b	Maxillary & coccygeal
2	The pulse rate in goat is taken from the arteries:	С	Coccygeal & Jugular
		d	Pulmonary & Jugular
		e	None of these
		a	Bacteria
		b	Virus
3	Foot and mouth in cattle is due to infection by:	С	Parasite
		d	Fungus
		e	None of these
		a	21 days
		b	18 Hours
4	Average range of bovine oesterous cycle is:	С	281 days
	,	d	30 days
		e	None of these
		a	2 to 8 hours
		b	4 days
5	What is the heat period in buffalo?	С	8 to 12 days
	What is the near period in outland.	d	12 to 34 days
		e	None of these
	Udder secretion immediately after calving is called:	a	First milk
		b	Special milk
6		c	Colostrum
		d	Calf starter
		e	None of these
		a	Less
		b	Indefinite
7	Scrotal temperature of a bull for spermatogenesis compared	С	More
	with body temperaure is:	d	Equal
		e	None of these
		a	10 kg
		b	20 kg
8	Dry matter required by cow of 400 kg body weight should	С	2.5 kg
	be (per day)	d	0.5 kg
		e	None of these
		a	Vitamin B <sub>12</sub>
		b	Protein
9	Pica is caused due to the deficiency of:	c	Phosphorus
		d	Cystine
		e	None of these
		a	Suckling
		b	Knuckling
10	Best method of milking is:	c	Full hand milking
		d	Stripping
		e	None of these
		a	Anthrax
		b	Black quarter
11	Name the disease where carcass must be pitted with lime:	c	Tuberculosis
11	Name the disease where carcass must be pitted with time:	d	Malaria
		e	None of the above
	<u> </u>		TYONG OF THE ADOVE

		0	Keep herd moving
		a b	Detect the animal in heat
12	A tagear hull is maintained to:		Protect weak animals
12	A teaser bull is maintained to:	c d	Inseminate cow
		e e	None of the above
		a	13 25
13	Total solid percentage of cow milk is approximately:	b	
		С	0.5
		d	None of these
		a	13
1.4		b	25
14	Total solid percentage of buffalo milk is approximately:	С	0.5
		d	17 N. 64
		e	None of these
		a	At the onset of heat
		b	Mid of estrus
15	Mark the time of insemination of a cow in heat:	С	Between mid to late of heat
		d	Between late to end of heat
		e	None of these
		a	1100 kg
		b	1400 kg
16	Mark the average lactation milk yield of Sahiwal cow.	С	1800 kg
		d	2000 kg
		e	None of these
	Gestation period in case of buffalo is of:	a	282 days
		b	151 days
17		С	310 days
		d	335 days
		e	None of these
	Addition of water in milk will:	a	Increase specific gravity
		b	Decrease specific gravity
18		С	Increase total solids
		d	No change in specific gravity
		e	None of these
		a	50%
10		b	2%
19	Flushing can increase the lamb crop by	c	30%
		d	10-20%
		a	10%
	Small ruminant contribution towards total meat production	b	20%
20	of the country is	c	33%
	of the country is	d	50%
		a	Lohi
		b	Salt Range
21	Which one is the fat tail breed of sheep?	С	Sipli
		d	Kajli
		a	Barseem
		b	Oats
22	Which one is the Kharif fodder?	c	Barley
		d	Sorghum
			H.S
		a b	Foot & Mouth
23	The most killer disease of sheep and goat is		
	90m 10	С	Rinderpest
		d	Enterotoxemia
		a	Orally
24	Vaccination in livestock is mostly done by	b	Intramuscular injection
		С	Intrauterine injection
		d	Subcutaneous injection

-			
		a	10%
25	The total solids %age in goat colostrum is	b	40%
23	The total solids /bage in goat colositum is	c	15%
		d	20%
		a	Subcutaneous fat
26	M. Him in many in the standard of	b	Intramuscular fat
26	Marbling in meat is due to deposition of	С	Intramuscular fat
		d	None of these
		a	Cattle
		b	Camel
27	Chevon is the meat of	c	Deer
		d	Goat
		a	Beetal goat
		b	Sheep
28	Mohair is the fleece of	c	Camel
		d	
			Angora goat
		a	oxytocin
20	If cow gets excited or disturbed at milking time the "Hold-	b	progesterone
29	up" of milk occurs, it is due to release of:	С	renine
		d	Adrenalin
		e	None of these
		a	is dry
		b	has just calved
30	A cow can best be judged when she:	c	is in full milk production
		d	5 years old
		e	None of these
		a	be long and narrow
	The udder of good dairy cow should:	b	be wide and extend well up behind
31		С	round, smooth and hard
		d	pendulous
		e	None of these
		a	Riboflavin
		b	Carotene
32	Yellow colour of cow milk is due to:	c	Casein
		d	Lactose
		a	Reticulum
		b	Rumen
33	Which part of stomach is fully developed in a sucking calf?	c	Omasum
		d	Abomasum
		a	Cow
34	The maximum lactose content is found in the milk of:	b	Buffalo
		С	Goat
ļ		d	Woman
		a	bacteria and viruses
35	Mastitis in cattle is usually due to:	b	viruses and worm
	in cause to abadily due to.	С	fungi and dry milking
		d	worms
		a	Roughage
36	A feed high in energy or protein, low in fiber and highly	b	Concentrate
30	digestible is	С	Silage
		d	Hay
		a	120 days
27	The average lactation period of milch goats in Pakistan on average it is	b	350 days
37		С	400 days
		d	305 days
L		<b>•</b>	1

			305 days
		a b	320 days
38	The standard lactation period of milch cattle is		
	1	С	250 days
<u> </u>		d	150 days
	Name the master of	a	Smallpox
39	Name the most common disease transmitted to human	<u>b</u>	Malaria
	through cow's milk:	C	Tuberculosis
<u> </u>		d	Milk fever
		a	Draft breed
40	Red Sindhi is a:	b	Milch breed
1		c	Dual purpose breed
<u> </u>		d	None of them
		a	Ist day of birth
		b	One week age
41	Mark the age of marking a calf for identification.	С	2 weeks age
		d	3 weeks age
<u> </u>		e	None of these
		a	10
	Mark the total number of all temporary teeth in both jaws of	b	20
42	a cow.	c	32
		d	50
		e	Non of these
		a	2 months
	Mark the optimum age for castration of male calves by	b	2 to 3 months
43	bloodless castration method.	c	3 to 4 months
		d	4 to 6 months
		e	None of these
1	Castration in female calves is called:	a	Sterilization
		b	teaser
44		c	vasectomization
		d	spaying
		e	None of these
		a	15 months
		b	18 months
45	Approx. age of sexual maturity of buffalo bull is:	С	20 months
		d	22 months
L		e	None of these
		a	10-20
	Mort the outiline 1 mile of	b	20-30
46	Mark the optimum dry matter %age in green maize for	С	30-40
	silage making:	d	40-50
		e	None of these
		a	3.5-4.2
		b	4.2-4.5
47	Mark the pH of good silage:	c	4.5-4.8
		d	Above 4.8
1		e	None of these
		a	18 %
		b	25
48	Mark the max. moisture in fodder stored as hay:	c	30
.5	Today stored as may.	d	40
		e	None of these
	<del> </del>	a	300 kg
		b	400 kg
		c c	500 kg
49	One livestock unit is equal to body weight of:	d d	600 kg
	, , ,	e e	None of these
		C	Trone of these
L	<u> </u>		<u>i</u>

	T T		
		a	8 cows
	Under hand method of milking good milker at a stretch can	b	12 cows
50	efficiently milk	С	18 cows
	ciricionaly mink	d	22 cows
		e	None of these
		a	Estrogen
£ 1	Which the amount of access will adjection?	b	Oxytocin
51	Which 'hormone' causes milk ejection?	С	Thyroxin
		d	Parathormone.
		a	50%
	In a mixed farm, the minimum contribution to total income	b	40%
52	from animals should be:	c	20%
		d	10%
		a	30
		<u>a</u> b	27
53	What is the number of pairs of chromosome in goat?		23
		c d	21
	William to the head heat for the first fir	a	Birth weight of male
54	What is the best basis for selection of bull calves for	b	Body conformation
	breeding?	С	Dam's milk yield
		d	None of above
		a	Close breeding
55	Mule is an example of:	b	Line breeding
33	Write is an example of.	c	Hybridization
		d	Out crossing
		a	One kilogram of concentrate for each
	Which one of the following correctly represents the thumb rule for feeding of buffaloes?		half litre of milk
		b	One kilogram of concentrates for
5.0			each litre of milk
56		С	One kilogram of concentrate for each
			three litres of milk
		d	One kilogram of concentrates for
			each two and half litres of milk.
		a	Bull
		b	Suckling calves
57	Which one of the following should not be fed urea?	c	Heifer
		d	Cow
		a	Stomach
	Name the organ where microbial digestion in non-ruminant	b	Small intestine
58	animals occurs:		
	annuals occurs.	c d	Large intestine None of the above
-			
		a	Rich in Ca
59	Cereal grains by products are:	b	Rich in P
		<u> </u>	Low in P and rich in Ca
		d	Rich in P and low in Ca.
		a	Half body weight
60	How much milk should be fed per day to a calf during	b	1/4 body weight
	second week?	c	1/8 body weight
		d	1/10 body weight
		a	Three
61	How many crossbred cows can be maintained on the green	b	Five
61	fodder available from one hectare of land?	С	Seven
	and the same of th	d	Ten
		a	Uterine infections
		b	Heat cycle
62	Thick purulent discharge from the vagina of cow indicates:	c	Mastitis
			Vaginitis.
L		d	, agiiias.

For getting advantage from the male and female genotypes, which practice should be adopted?  64 Gestation period of goat is:  65 Gestation period of goat is:  66 Medicines which check the growth of micro-organisms but do not kill are known as:  66 The duration of passive acquired immunity is:  67 The duration of passive acquired immunity is:  68 Indicate the period during which the intestinal mucosa of the new born animal is able to absorb immunoglobulin of colostrums:  68 The most suitable time for vaccination against H.S is:  69 In which disease swelling in the neck and throat region is noticed?  69 In which disease swelling in the neck and throat region is noticed?  70 Anti-foaming agents are used in the treatment of:  71 What is the casein percentage in milk of Sahiwal cow?  72 Which is the unit for measuring the viscosity of milk?  73 The milk fat percentage is highest in which of the following animals?  74 Which constituent affects freezing point of milk?  75 What is the Legal Standard for S. N. F % of buffalo milk?  76 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  76 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  77 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  78 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  78 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  78 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  78 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?  78 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk far?			a	Embryo transfer
which practice should be adopted?  C Synchronisation of estrus  d Natural mating  a 307 days  b 145 days  c 270 days  d 60 days  d Antibiotic  Medicines which check the growth of micro-organisms but do not kill are known as:  The duration of passive acquired immunity is:  C Purgative  d Anthelmentic.  a 10-20 days  d 40-50 days  a 40-50		For getting advantage from the male and female genotypes.		
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The duration of passive acquired immunity is:    Columb		do not kili are known as:		
The duration of passive acquired immunity is:    Coloration   30-30 days				
The duration of passive acquired immunity is:   C   30-40 days     d   40-50 days     a   upto few hours after birth     b   upto 48 hours after birth     c   upto 96 hours after birth     d   upto 144 hours after birth     d   December     c   Just before monsoon     d   February     a   Rinderpest     d   Haemorrhagic septicaemia.     d   None of the above     a   1.55     b   2.55     c   3.55     d   4.55     a   Allbumin     b   Globulin     c   Casein     d   Affa- Globulin     c   Casein     d   Affa- Globulin     c   Casein     d   Cow     a   Fat     b   Protein     c   Lactose     d   None of the above     a   Fat     b   Protein     c   Lactose     d   None of the above     a   So     d   9.5     a   50     d   9.5     d   9.5				
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Indicate the period during which the intestinal mucosa of the new born animal is able to absorb immunoglobulin of colostrums:  The most suitable time for vaccination against H.S is:  The most suitab		The duration of pussive acquired immunity is:		·
Indicate the period during which the intestinal microsa of colostrums:   b   upto 48 hours after birth   upto 96 hours after birth   upto 144 hours after birth   upto 146 hours after birth			d	·
the new born animal is able to absorb immunoglobulin of colostrums:  The most suitable time for vaccination against H.S is:  The most suitable		Indicate the newled drawing which the intestinal masses of	a	upto few hours after birth
colostrums: d upto 144 hours after birth d upto 144 hours after birth December  1 he most suitable time for vaccination against H.S is:  1 he most suitable time for vaccination against H.S is:  2	67		b	upto 48 hours after birth
The most suitable time for vaccination against H.S is:  The most suitable time for vaccination against	07		С	upto 96 hours after birth
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The most suitable time for vaccination against H.S is:    C			b	
In which disease swelling in the neck and throat region is noticed?	68	The most suitable time for vaccination against H.S is:		
In which disease swelling in the neck and throat region is noticed?  In which disease swelling in the neck and throat region is noticed?  Anti-foaming agents are used in the treatment of:  Anti-foaming primary uminaturental Impaction of rumen  Primary ruminat tympany  A None of the above  A Allbumin  b Globulin  c Casein  d Alfa-Globulin  a Mare  b Buffalo  c Cow  A Fat  b Protein  c Lactose  d None of the above  a So  None of the above  a So  None of the above				
In which disease swelling in the neck and throat region is noticed?    Anti-foaming agents are used in the treatment of:   Anti-foaming almany ruminal tympany   Anti-foaming almany ruminal t				
noticed?  noticed?  Anti-foaming agents are used in the treatment of:  Anti-foaming a Impaction of runle  B Primary ruminal tympany  C Secondary ruminal tympany  a 1.55  a 1.55  a Allbumin  b Globulin  c Casein  d Alfa-Globulin  a Mare  b B Buffalo  c Goat  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  a 50  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  C Bload  Anti-foaming a Impact of the above  a 1.55  c 3.55		I		
Anti-foaming agents are used in the treatment of:  Anti-foaming tympany	69			
Anti-foaming agents are used in the treatment of:  Anti-foaming tympany  Anti-fo				
Anti-foaming agents are used in the treatment of:    Anti-foaming agents are used in the treatment of:   Comparison of the above				
Anti-toaming agents are used in the treatment of:    C   Secondary ruminal tympany		Anti-foaming agents are used in the treatment of:		
What is the casein percentage in milk of Sahiwal cow?  What is the casein percentage in milk of Sahiwal cow?  Which is the unit for measuring the viscosity of milk?  Which is the unit for measuring the viscosity of milk?  Which is the unit for measuring the viscosity of milk?  The milk fat percentage is highest in which of the following animals?  Which constituent affects freezing point of milk?  Which constituent affects freezing point of milk?  What is the Legal Standard for S. N. F % of buffalo milk?  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  A very sectionary tunimal rympany  d None of the above  a Allbumin  b Globulin  c Casein  d Alfa-Globulin  a Mare  b Buffalo  c Goat  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  a 50  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  c 70	70			
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The milk fat percentage is highest in which of the following animals?  The milk fat percentage is highest in which of the following animals?  The milk fat percentage is highest in which of the following animals?  Buffalo  C Goat  Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  None of the above  a 8.0  b 8.5  c 9.0  d 9.5  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  A thick the Legal Standard for S. N. F % of buffalo milk?  b 65  c 70	72	Which is the unit for measuring the viscosity of milk?	С	
The milk fat percentage is highest in which of the following animals?  The milk fat percentage is highest in which of the following animals?  The milk fat percentage is highest in which of the following animals?  The milk fat percentage is highest in which of the following a Buffalo  Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  b Buffalo  c Goat  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  a 50  b 65  c 70				
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animals?  C Goat  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  C Goat  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 9.5  c 9.0  d 9.5  c 70		The milk fat percentage is highest in which of the following		
d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  d Cow  a Fat  b Protein  c Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  a 50  c 70	73			
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75 What is the Legal Standard for S. N. F % of buffalo milk?  What is the Legal Standard for S. N. F % of buffalo milk?  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  C Lactose  d None of the above  a 8.0  b 8.5  c 9.0  d 9.5  a 50  C 70	74	Which constituent affects freezing point of milk?		
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What is the Legal Standard for S. N. F % of buffalo milk?  b 8.5 c 9.0 d 9.5  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  b 8.5 c 9.0 d 9.5 c 70			d	
75 What is the Legal Standard for S. N. F % of buffalo milk?  C 9.0  d 9.5  a 50  At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  b 65  c 70				
76 At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  c 9.0 d 9.5 a 50 b 65 c 70	75	What is the Legal Standard for S. N. F.% of buffalo mills?	b	
At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  a 50 b 65 c 70	13	w nat is the Legal Standard for S. IV. P % Of Duffalo Inflk?	С	9.0
At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  a 50 b 65 c 70			d	
At what temperature the Gerber Butyrometer should be kept in hot water bath for determination of milk fat?  b 65 c 70				
in hot water bath for determination of milk fat?	_	At what temperature the Gerber Butvrometer should be kept		
	76			
		in not water bath for determination of mink rat?		75

			T
		a	Lactose
77	Indicate the nitrogenous substance in milk:	b	Uric acid
		c	Cholesterol
		d	Carotene
		a	Secretary phase
		b	Fore milk
78	In which portion of milk from udder bacteria content is	С	Mid milk
	highest?	d	Stripping
		u	Suipping
		a	To carry milk from different quarter
		а	of udder
		1_	
79	What is the function of milk veins?	b	To supply blood from heart to udder
		c	To carry blood from udder towards
			the heart
		d	None of the above
		a	200
		b	300
80	Mark the desirable gain per day of healthy growing calf:	С	400
		d	500
		e	None of these
-			87
		<u>a</u> b	13
0.1	W. dan and the control of the contro		
81	Water percentage of cow milk is approximately:	С	75
		d	50
		e	None of these
		a	21days
		b	22 hours
82	Mark the heat period of a healthy goat:	С	16 hours
		d	38 hours
		e	None of these
		a	20-24 months
		<u>u</u> b	24-30 months
83	Moule the east of first colving of a proschard heifer		36-40 months
63	Mark the age at first calving of a crossbred heifer	C	
		d	3-4 years
		e	None of these
		a	Vulva
		b	Vagina
84	Mark the best place of insemination of a buffalo in heat	c	Cervix
		d	Dioestrum
		e	None of these
		a	5 to 6 years
		b	6 to 7 years
85	Central pair of incisor in cattle start wearing off at:	c	7 to 8 years
33	Central pair of meisor in cattle start wearing off at.	d	8 to 9 years
		-	
		e	None of these
		a	60-70
_		b	42-60
86	Mark the normal pulse rate per minute of a bullock:	c	98.6
		d	100
		e	None of these
		a	Cow
		b	Buffalo
87	Wether is the castrated animal of:	c	Sheep
8/	Weiter 18 the Cashaten allillial Of.	d	Goat
			None of these
		e	rione of these

			T
		a	7 minutes
	Milking of cow yielding 15 kg milk/day should be	b	10 minutes
88	completed within:	c	12 minutes
	Completed within.	d	15 minutes
		e	None of these
	Mode the terror witchle for a constant and a constant	a	36.6 C
	Mark the temperature suitable for normal spermatogenesis	b	39 F
89	in bull:	С	42.6 F
		d	52.6 C
		e	None of these
		a	Streer
		b	Teaser
90	A vasectomized male is called:	c	Stage
, ,	The second secon	d	Bullock
		e	None of these
		a	Cobalt chloride
		b	Iron Sulphate
0.1	Which of the solt in minoral min of covernments solten		Pot. Iodide
91	Which of the salt in mineral mix of cow prevents goiter:	С	Sodium chloride
		d	I.
		e	None of these
		a	Wet hand with water
		b	Dry hand
92	Best method of milking of cow is by:	С	Wet hand with milk froth
		d	Wet hand with oil
		e	None of these
		a	Milk daily
		b	Milk weekly
93	Best method of recording milk for true picture is to record:	c	Certain days in a week
		d	Milk and feed weekly
		e	None of these
		a	12.5 kg
	D 1 11 1 551 55001 1 1	b	15 kg
94	Dry matter per day needed by a buffalo of 500 kg body wt.	С	20 kg
	should be:	d	25 kg
		e	None of these
		a	1 to 1.5
		b	2 to 2.5
95	For every kg of milk produced the water needed by the cow	c	3 to 3.5
)3	is:	d	4 to 4.5
		e	None of these
			10 m
		a b	11.5 m
06	Width of a double row system (toil to toil home) is:	<u>b</u>	11.5 m
96	Width of a double row system (tail to tail barn) is:	С	
		d	15.4 m
		e	None of these
		a	20
	A double row dairy shed of 24.6 m x 11.54 m (L x W) can	b	30
97	house cows	c	40
		d	50
		e	None of these
		a	Globulin
		b	Casein
98	A constituent found in milk and blood both is:	c	Albumen
		d	Minerals
			None of these
			•

			High in calcium
	•	a b	High in calcium
	Destroiant manages and he amounted her feeding a dist	D	High in phosphorus and low in calcium
99	Parturient paresis can be prevented by feeding a diet		
	prepartum:	c	High in calcium and low in
		.1	phosphorus
		d	More salt in diet
		a	Intravenous calcium
100	Heamoglobinuria in buffaloes can be treated more	b	Sodium acid phosphate
	effectively by:	c	Antifibrinolytic drugs
		d	Dextrose saline
		a	Cattle and buffalo
101	H. S. occurs in the severe from in:	b	Horse and mules
101	11. 9. decuis in the severe from in.	c	Dogs and cats
		d	Pigs and rodents.
		a	Immediately
102	In demonstration with a factilized and march as the external	b	1 to 2 days after fertilization
102	In domestic animals the fertilized egg reaches the uterus:	С	3 to 5 days after fertilization
		d	6 to 8 days after fertilization
		a	Salmonella
<b>.</b>		b	Lesteria
103	Infection transmitted to human through milk is:	c	Clostridium
		d	Both A and B
		a	Bacillus
		b	lactobacillus
104	The thermophillic bacteria in raw milk are:		<u> </u>
	•	c d	Staphylococcus None of these
		a	18.5 %
105	The protein content of Mutton is:	b	23.0 %
	T	С	21.4%
		d	24.0%
		a	6 to 12 hours
106	The fertile life of ovulated bovine eggs is:	b	20 to 40 hours
100	The forther life of ovulated boome eggs is.	c	30 to 48 hours
		d	48 to 72 hours
		a	Lung
107	Most of the glycogen in the animal body is present in:	b	Spleen
107	Wost of the grycogen in the animal body is present in.	c	Liver
		d	Heart
		a	Odour
100	Oxidative rancidity during frozen storage of meat gradually	b	Flavor
108	decreases:	С	Taste
		d	Both A and B
		a	Rectal Examination
<b>.</b>		b	Progesterone Assay
109	The earliest pregnancy diagnosis test for bovine is:	c	Ultrasound
		d	Radiography
			Vitamin A
		a b	Vitamin C
110	Beta carotene is the source of:		Riboflavin
		С	
		d	Niacin
		<u>a</u>	Angora
111	Which goat is reared for Mohair?	<u>b</u>	Teddy
	J	С	Beetal
		d	Jamnapari
		a	Lactation length and gestation length
110	Colving interval is the total sum of	b	Gestation length and dry days
112	Calving interval is the total sum of:		
112	Calving interval is the total sum of:	С	Service period and gestation days  Open days and dry days

		_	Discuss 1
		a	Phenol
113	A common but effective disinfectant for water trough of	b	Potassium permanganate
	cattle farm is:	С	Lime
		d	Washing soda
		a	5 to 7 kg
114	The daily dry matter requirement of cattle per 100 Kg body	b	3.5 to 4.5 Kg
111	weight is:	c	2 to 2.5 Kg
		d	1 to 1.5 Kg
		a	14 to 15 % DCP and 50 % TDN
115	Lucern hay contains;	b	50 % DCP and 10 % TDN
113	Lucein hay contains,	c	30% DCP and 31 % TDN
		d	20 % DCP and 30 % TDN
		a	Foot and mouth disease
116	Many according to the day to	b	Pox
116	Most essential vaccination in goats is:	С	Enterotoxemia
		d	Rinderpest
		a	Carbohydrates
		b	Fat
117	Bone meal is a good source of:	С	Phosphrous
		d	Calcium and phosphorus
		a	Caustic potash stick
	The most appropriate method of dehorning (debudding)	b	Surgical removal
118	calves is:	С	Electric dehorner
	carves is.	d	None of these
		a	5 hr
	Mark the ovulation time after onset of heat in buffaloes:	b	7 hr
119		c	10 hr
11)		d	13 hr
		e	None of these
		a	1.0-1.5 years
		b	1.5-2.0 years
120	Breeding age (years) of a crossbred heifer having attained	c	2.0-2.5 years
120	250 kg body weight is	d	2.5-3 years
		e	None of these
			.2%
		a	.270
121	The control ectoparasites in growing calves spraying may	b	
121	be done with BHC solution of:	С	.4%
		d	0.5%
		e	None of these
		a	3 months
100	At what age of heifers you would suggest vaccination for	b	4 months
122	Rinderpest, T.B. and FMD	С	10 months
	- 	d	6 months
		e	None of these
		a	250 days
123	Mark the optimum calving interval for the high level of	b	310 days
	breeding efficiency in cows:	С	395 days
		d	450 days
		e	None of these
		a	2-3 %
	In general low percentage of infertility occurs in younger animals but increase in case of older cows which is approximately:	b	3-4 %
124		С	4-5 %
		d	5-6 %
		e	None of these

	<u>,                                      </u>		
		a	10-20
	Mark the optimum dry matter %age in green maize for	b	20-30
125	silage making:	c	30-40
	Shage making.	d	40-50
		e	None of these
		a	3 days
		b	2 weeks
126	Mark the age of calf when calf starter can be fed in gruel	С	4 weeks
	form:	d	4.36 weeks
		e	None of these
		a	240° C
		b	340° C
127	Mark the temperature of electrical dehorner used for	С	440° C
	disbudding:	d	540° C
		e	None of these
		a	22.5 m <sup>3</sup>
		b	33.5 m <sup>3</sup>
128	Mark the air space for cow sufficient to provide enough	c	$44.5 \text{ m}^2$
120	ventilation:	d	55.6 m <sup>3</sup>
		e	None of these
		a	1 year 9 months
		b	2 year 3 months
129	Mark the age of crossbred heifer when central pair of permanent incisor erupts.	c	2 year 9 months
12)		d	3 year 3 months
		e	None of these
		a	90-95
	Mark the minimum score points of a dairy cow judged on type and appearance by score card method:	b	85-90
130		c	80-85
130		d	80-70
		e	60-50
		a	14.6 m
		b	24.6 m
131	Mark the length of tail to tail, face to face barn (including	c	34.6 m
101	walls) for 40 crossbred cows:	d	48 m
		e	None of these
		a	5.54 m
		b	10 m
132	Mark the width (including walls) of a tail to tail barn for	c	11.54 m
132	keeping 50 crossbred cows:	d	24.6 m
		e	None of these
		a	Continuous
		b	Partitioned
133	The best kind of manger is made of cement with corners	c	Covered
133	rounded and is:	d	Open
		e	None of these
		a	1.2 x 1.5 m
		b	1.5 x 1.7 m
134	Mark the size of stanchion stall per cow:	c	1.5 x 2.0 m
154	Train are size of stancinon stant per cow.	d	2 x 2.5 m
		e	None of these
		a	His size
		b	His type
135	Mark the most important factor to consider in selection of bull:	c	His masculinity
135		d	His dam production
			None of these
		e	THORE OF LIESE

136	The best and only basis for selecting the young untried bull is by:	a	Pedigree
		b	Conformation
		c	Disposition
		d	Breed
		e	None of these

**Keys MCQs Section B: Theriogenology / Animal Reproduction** 

No.	Answer	No.	Answer	No.	Answer
1	A	51	В	101	A
2	A	52	D	102	D
3	В	53	A	103	A
4	A	54	С	104	A
5	Е	55	С	105	A
6	С	56	D	106	A
7	A	57	В	107	С
8	A	58	С	108	D
9	С	59	С	109	В
10	С	60	D	110	A
11	A	61	A	111	A
12	В	62	A	112	С
13	A	63	A	113	В
14	D	64	В	114	С
15	С	65	A	115	A
16	C	66	A	116	C
17	C	67	A	117	D
18	В	68	C	118	A
19	D	69	D	119	В
20	C	70	A	120	В
21	В	71	В	121	D
22	D	72	C	122	D
23	D	73	В	123	C
24	D	74	A	124	D
25	D	75	В	125	C
26	В	76	В	126	В
27	D	77	В	127	D
28	D	78	В	128	A
29	D	79	C	129	A
30	C	80	D	130	D
31	В	81	A	131	В
32	В	82	D	132	C
33	D	83	В	133	В
34	D	84	C	134	A
35	A	85	C	135	D
36	B	86	A	136	A
37	A	87	C	130	11
38	A	88	A		
39	C	89	A		
40	В	90	B		
41	A	91	C		
42	B	92	В		
43	D	93	A		
44	D	94	B		
45	D	95	C		
45	C	96	В		
47	В	97	С		
48	A	98	A		
48	C	98	C		
50	В	100	С	]	

#### **Short Questions with answers**

#### **Clinical Medicine and Surgery**

## 1. Describe the signs of aspiration pneumonia in buffaloes?

Typically, the cow has a painful expression and stands with a roached back stance with the neck extended and the head held lowered and walks slowly. The animal does not eat. The rectal temperature is elevated within a range 39.5 to 40.0°C. There is a bilateral mucoid/purulent nasal discharge and the animal coughs frequently. The respiratory rate is elevated with an obvious abdominal component. The cow has halitosis. The milk yield is greatly reduced.

# 2. Give the protocol for preparation of autovaccine in papillomatosis in bovines?

Five grams active growth removed. Tissue cut into small pieces, homogenized in 50% glycerol-saline solution(30ml/g of tissue) and the mixture filtered through muslin cloth Antibiotics(200,000 IU of Procaine Penicillin and 250mg of Dihydrostreptomycin sulphate) be added to prevent bacterial growth. Formalin 0.4ml per 100ml of filterate added to inactivate virus and refrigerated for 24hrs. Vaccine (15 ml SC) administered twice at one week interval .

#### 3. Write treatment protocol of actinobacillosis in buffaloes?

Sodium iodide is the treatment of choice in actinobacillosis in ruminants. IV sodium iodide (70 mg/kg of a 10%–20% solution) is given once and then repeated 1 or 2 times at 7- to 10-day intervals. If clinical signs of iodine toxicity develop (including dandruff, diarrhea, anorexia, coughing, and excessive lacrimation), iodine administration should be discontinued. Clinical improvement is often seen within 48 hr of therapy, and treatment is usually successful when only the tongue is involved. Systemic antibacterial agents, such as ceftiofur, penicillin, ampicillin, florfenicol, and tetracyclines may be effective and are primarily recommended in severe cases of actinobacillosis or in cases refractory to sodium iodide therapy. Surgical debulking of lesions, especially if they interfere with breathing, may be useful. This is particularly true when large granulomatous masses that do not respond to medical therapy are present. Prevention of actinobacillosis in ruminants primarily relies on avoidance of coarse, stemmy feedstuffs and pastures full of hard, penetrating plant awns.

## 4. What is the normal rectal temperature range during morning hours in camels.

Rectal temperature in camels 106 °F (41 °C) during the day.

## 5. Write medicines used cautiously in cats (Any two)?

Enrofloxacin and Gentamicin

### 6. Give the treatment protocol of parturient haemoglobinuria in buffaloes?

**Day-1:** Sodium dihydrogen phosphate 60g.Dissolve it in 300ml distilled water. Add this to 3 liters of Dextrose 10% and give I/v.Sodium dihydrogen phosphate 60g dissolve in 300ml distilled water. Add 10ml xylocaine 2% with adrenaline and give SC. Sodium dihydrogen phosphate 100g dissolve in ½ litre tap water and drench.Inj. Fosfan ,35ml.Progestrone 10ml,Vitamin AD3E or Vitomineral –T powder given PO in the morning.Copper sulphate 2g ,grind it in to fine powder,dissolve in 250 ml each water and vinegar and drench it in evening.

Stop berseem feeding and manage the animal on maize or oat fodder. Give a gruel containing candied roses (gulqund ½ kg),glycerine (250 ml, wheat porridge), (jiggery ½ kg) and milk(1 ½ litre).

Day 2, 3 and 4: Repeat the treatment.

#### Pharmacology:

## Describe vaso-reversal phenomena of Dale.

This was first discovered by Dale in 1913, thus is also called Dale vasomotor reversal phenomenon. When adrenaline is administered it acts on both alpha and beta receptors, causing increased temperature, pulse, respiration (TPR) and increased blood pressure (both systolic and diastolic). When alpha blockers are given, they antagonize the effects of alpha receptors, causing decrease in systolic blood pressure. Adrenaline effect is

reversed by administration of alpha blockers. This has no therapeutic importance.

#### Discuss the pharmacology of ganglion blocking drugs.

Ganglion blocking agents competitively block the action of acetylcholine and similar agonists at nicotinic receptors of both parasympathetic and sympathetic autonomic ganglia. Some members of the group also block the ion channel that is gated by the nicotinic cholinoceptor. The ganglion-blocking drugs are important and used in pharmacologic and physiologic research because they can block all autonomic outflow. However, their lack of selectivity confers such a broad range of undesirable effects that they have limited clinical use.

#### Describe bioavailability, bioequivalence and chemical equivalence.

The rate and extent to which the active ingredient or therapeutic moiety is absorbed from a product and become available at the site of drug action is called bioavailability.

Two or more chemically or pharmaceutically equivalent products produce comparable bioavailability characteristics in any individual when administered in equivalent dosage regimen is known as bioequivalence.

Chemical equivalence indicates that drug products contain the same active compound in the same amount and meet current official standards; however, inactive ingredients in drug products may differ.

#### Describe resistance, tolerance, tachyphylaxis and drug allergy.

Drug resistance means the loss of the effectiveness of antimicrobial or antitumour drugs.

Tolerance is a reduced effect or increased dose requirement after repeated administration of a drug. It may be due to receptor down-regulation or increased metabolism. e.g. opiates, barbiturates.

Tachyphylaxis is a rapid diminution in responsiveness following administration of a drug.

A drug allergy is an adverse drug reaction that results from a specific immunologic response to a medication.

#### Discuss idiosyncratic reactions of drugs.

Idiosyncratic drug reactions, also known as type B reactions, are drug reactions that occur rarely and unpredictably amongst the population. They frequently occur with exposure to new drugs, as they have not been fully tested and the full range of possible side-effects have not been discovered; they may also be listed as an adverse drug reaction with a drug, but are extremely rare.

#### OR

An idiosyncratic reaction is an unusual adverse reaction, sensitivity or resistance to a drug, usually genetically determined. An example is suxamethonium apnoea in pseudocholinesterase deficiency.

#### Write down mode of action of penicillin, quinolones and chloramphenicol.

Penicillin has an interesting mode of action: it prevents the cross-linking of small peptide chains in peptidoglycan, the main wall polymer of bacteria. Pre-existing cells are unaffected, but all newly produced cells grow abnormally, unable to maintain their wall rigidity, and they are susceptible to osmotic lysis.

#### Or Penicillin inhibit cell wall synthesis.

The mode of action of quinolones involves interactions with both DNA gyrase, the originally recognised drug target, and topoisomerase IV, a related type II topoisomerase.

Inhibition of protein synthesis, Chloramphenicol irreversibly binds to a receptor site on the 50S subunit of the bacterial ribosome, inhibiting peptidyl transferase.

## Discuss the pharmacology of tribrissen also enlist the cardinal principles of sulpha therapy.

In general tribrissen behave as weak organic acids. tribrissen have low water solubility. Tribrissen (Sulphas) are structural analogs of Para Amino Benzoic Acid (PABA) and competitively inhibit an enzymatic step (dihydropterate synthetase) during which PABA is incorporated into synthesis of dihydrofolic acid (folic acid or B2).

#### Cardinal Principles of Sulpha Therapy includes

- 1. Should be given as early as possible
- 2. Parenteral injection should be preferred in critical cases
- 3. Maintenance doses should be given to maintain effective concentration in blood
- 4. Plenty of water and urinary alkalizers should be given
- 5. In anuria and dysuria, stop sulpha therapy
- 6. Treatment should not be continued for longer than 7-8 days.
- 7. If no response of sulpha is shown within first 2-3 days, stop giving sulpha
- 8. Dosing should be continued for 48 hrs even after disappearance of symptoms

#### Describe mechanism of action of general and local anaestheics; also enlist different stages of anaesthesia.

General anesthetics modulate the activity of ion channels, the main targets being GABA and NMDA channels and possibly voltage-gated and background channels, thereby directly or indirectly hyperpolarizing neurons in thalamocortical loops, and thereby disrupting coherent oscillatory activity in the cortex.

Local anesthetic drugs act mainly by inhibiting sodium influx through sodium-specific ion channels in the neuronal cell membrane, in particular the so-called voltage-gated sodium channels. When the influx of sodium is interrupted, an action potential cannot arise and signal conduction is inhibited.

#### **Stage I** stage of analgesia or disorientation

Stage II stage of excitement or delirium

Stage III stage of surgical anesthesia

Stage IV: Medullary paralysis

## **Enlist different classes of diuretics.**

Carbonic Anhydrase Inhibitors

Loop Diuretics

Thiazides diuretics

Potassium-Sparing Diuretics

Osmotic Diuretics

## Write down difference between lotion, cream, emulsion and ointment.

An emulsion is a thermodynamically unstable two-phase system consisting of at least two immiscible liquids, one of which is dispersed in the form of small droplets throughout the other, and an emulsifying agent.

Cream is an emulsion of water and oil or classified as oil in water (o/w) or water in oil (w/o) emulsions.

Ointment is semi-solid preparations of hydrocarbons (petrolatum, mineral oil, paraffins, synthetic hydrocarbons).

Lotion is a loosely used term that nowadays includes any liquid preparation in which inert or active medications are suspended or dissolved.

#### Write down mode of action of steroids and NSAIDS.

Steroids act as nonselective inhibitors of the enzyme lipoxygenase (LOX) while NSAIDs act as nonselective inhibitors of the enzyme cyclooxygenase (COX), inhibiting both the cyclooxygenase-1 (COX-1) and cyclooxygenase-2 (COX-2) isoenzymes.

#### Discuss plants sources of drugs.

Alkaloids: Basic nitrogenous substances, which are insoluble in water but form water soluble salts with acids.

Glycosides: various sugars combined with organic structures through an ether like linkage.

**Saponins**: Non-nitrogenous substances soluble in water and capable of causing foam/froth when shake with water.

**Tannins**: Non-nitrogenous substances having a characteristic astringent action upon the mucosa by precipitating the proteins.

**Resins**: Brittle, amorphous compounds formed from the oxidation or polymerization of terpenes, components of volatile oils.

**Gums**: Polysaccharides secreted by trees and capable of forming thick mucilaginous colloids when mixed with water.

Balsams: Resins containing Benzoic or cinnamon acid.

# Describe receptor theory and drug receptor interactions.

Receptor theory is the application of receptor models to explain drug behavior. Postulates of receptor theory includes

Receptors must possess structural and steric specificity.

Receptors are saturable and finite (limited number of binding sites)

Receptors must possess high affinity for its endogenous ligand at physiological concentrations.

Once the endogenous ligand binds to the receptor, some early recognizable chemical event must occur.

The drug-receptor reaction is essentially an exchange of the hydrogen bond between a drug molecule, surrounding water, and the receptor site.

## Describe the mechanism of action of macrolides.

The mechanism of action of macrolides is inhibition of bacterial protein biosynthesis, and they are thought to do this by preventing peptidyltransferase from adding the growing peptide attached to tRNA to the next amino acid.

Macrolide antibiotics do so by binding reversibly to the P site on the subunit 50S of the bacterial ribosome

#### Enlist different classes of purgatives.

**Bulk-forming agents** 

Emollient agents (stool softeners)

Hyperosmotic agents

Stimulant agents

Saline laxative agents

Lubricant agents

## Physiology

#### What is passive immunity?

It is temporary immunity achieved by transfusion of "antibodies or sensitized T-cells"

Examples are ATS and colostrum.

## What is role of macrophages?

Macrophages are mature monocytes present in different tissues and are given name according to their locations,

They accumulate at the site of lesions in inflammatory conditions and also help in immune response.

Their main function is to be actively phagocytic and they act as scavenger ingesting bacteria, foreign bodies, damaged host cell, tumor cells and other debris.

#### What is hemolytic anemia?

In these types of anemia RBCs rupture with release of Hb"

Types:

Hereditary Spherocytosis

Sickle Cell Anemia

Thalassemia

Erythroblastosis Fetalis

#### What is sickle cell anemia & pernicious anemia?

In sickle cell anemia an abnormal variety of hemoglobin (Hb S) is present in blood. When this Hb exposed to low concentration of oxygen, it precipitates into long crystals inside RBC. The precipitated Hb damage cell membrane and give red cells a sickle appearance, which are highly fragile leading to serious anemia.

When Intrinsic factor is deficient, Vit. B<sub>12</sub> can't be absorbed leading to Megaloblastic anemia, particularly called pernicious anemia

# What are the different types of T-lymphocytes?

There are three main types of T-lymphocytes

Helper T-cells

Cytotoxic cells

Suppresser T- cells

#### What is the MOA of antibodies?

Antibodies act mainly in two different ways:

By direct attack on invader.

Agglutination

Precipitation

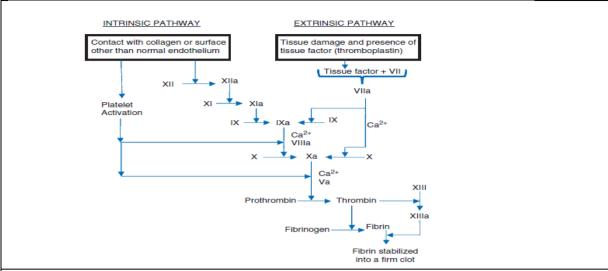
Lysis

By activation of complement system

Classical pathway

Alternate pathway

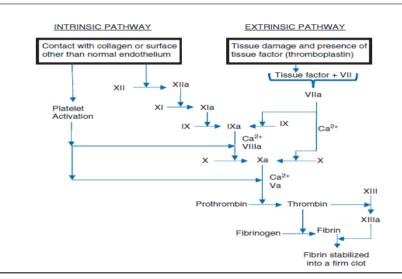
## Discuss intrinsic clotting pathway?



#### What is hemophilia?

Hemophilia is bleeding disorder resulting from deficiency of factor 8. It can only occurs in male because of single X-gene in males while females never have hemophilia because at least one of their X- chromosome is healthy.

#### Discuss extrinsic clotting pathway?



#### What is dyspnea?

Difficulty in breathing.

#### What are respiratory volumes?

Respiratory volumes measure the amount of air for a specific function.

The respiratory volumes that can be measured using a spirometer include

Tidal volume (TV).

Expiratory reserve volume (ERV).

Inspiratory reserve volume (IRV).

Residual volume

## What is dead space?

Dead space comprises of those areas of respiratory tract where gases are present but do not take part in gas exchange.

## What are respiratory capacities?

Respiratory capacities are the sum of two or more volumes.

The lung capacities that can be calculated include

Vital capacity (ERV+TV+IRV),

Inspiratory capacity (TV+IRV),

Functional residual capacity (ERV+RV), and

Total lung capacity (RV+ERV+TV+IRV)

## Enlist different forms of CO<sub>2</sub> transport in blood?

Carbonic acid

Bicarbonate ion

Carbaminohemoglobin

#### What are the different enzymes present in gastric juice?

Pepsinogen

Gastic lipase

Gastic amylase

Gelatinase

#### What are the different enzymes present in pancreatic juice?

Proteolytic enzymes

Trypsin

Chymotrypsin

Carboxypolypeptidase

Ribonuclease

Deoxyribonuclease

Carbohydrate splitting enzymes

Pancreatic amylase

Lipolytic enzymes

Pancreatic lipase

Cholesterol esterase

Phospholipase

#### What is the composition of bile?

water

bile salts

bilirubin

cholesterol

fatty acid

lecithin

sodium, potassium, calcium, chloride, bicarbonate.

#### What is Erythroblastosis detalis?

This type of anemia occurs in new borns because fetus is Rh positive while mother is Rh negative. So Rh positive red cells of the fetus are attacked by antibodies of Rh negative mother. These antibodies make red cells fragile and cause the child to be born with serious anemia,

## What is Heat Rigor?

The degree of elevated temperature at which coagulation of protoplasm occurs with death of the cell.

## How lymph is forms in the body? Also differentiate between compositions of Blood & Lymph?

Lymph is the fluid that circulates throughout the lymphatic system. The lymph is formed when the interstitial fluid (the fluid which lies in the interstices of all body tissues) is collected through lymph capillaries. It is then transported through lymph vessels to lymph nodes before emptying ultimately into the right or the left subclavian vein, where it mixes back with blood.

Lymph has a composition comparable to that of blood plasma, but it may differ slightly. Lymph contains white blood cells. In particular the lymph that leaves a lymph node is richer in lymphocytes.

## What are different factors that affect GFR (glomerular filtration rate)?

Increasing factors

Increased renal blood flow

Increased glomerular pressure

Increased bllod pressure

Efferent arteriolar constriction

Decreasing factors

Increased plasma colloid osmotic pressure

Increased bowman capsule pressure

Afferent arteriolar constriction

Sympathetic stimulation, causing afferent arteriolar constriction.

#### What are different means by which pumping of heart is regulated?

The pumping of heart is regulated by means of:

Intrinsic regulation

Frank starling mechanism (within physiological limit, heart pumps all the blood that comes to it without causing excess damming of blood into veins)

Control by autonomic nerves

Sympathetic system (increase heart rate and strength, thereby increasing the pumping ability. It can increase pumping upto 2-3 fold).

Parasympathetic system (decrease hert rate, strength, thereby decreasing the pumping ability. It reduce ventricular pumping by 50 percent)

#### Name major and minor salivary glands?

Parotid gland (serous type)

Submandibular and sublingual gland (serous mucous)

Small mucous gland (mucous type)

# What are different types of hormones? Write respective type of gland which produces a particular type of hormone.

Types of hormone:

local hormones e.g Ach, secretin, CCK

general hormones e.g epinephrine and nor epinephrine, growth hormone, thyroid hormone

endocrine glands of body

Pituitary gland

Thyroid gland

Parathyroid gland

Thymus gland

Adrenal gland

Pancreas

Ovaries

Testes

Placenta

## What is the role of S.A node in conductive system of heart?

It is a small flattened, ellipsoid strip of muscle located supralateral wall of right atrium and control the heart beat and maintain in rhythm. Therefore called pacemaker of heart.

The resting membrane potential of sinus node is -55 mV to-60 mV. It has an inherent tendency to sodium ions leakiness. This sodium ion influx raises the membrane potential to threshold value of about -40 mV causing action potential. At the end of action potential positive potassium charge go outside causing temporary hyperpolarization. In the next few sec K\* channel close. As a result of this normal resting membrane potential is achieved abd SA node ready for another impulse.

## Differentiate between Arteries, Veins & Capillaries?

Arteries:

Transport blood away from the heart

Carry blood under high pressure

Are elastic, muscular, and thick-walled

Dilate and constrict, which creates a pulse

Appear bright red due to high oxygen levels

Viens:

Carry deoxygenated blood to the heart

Contain one-way valves

Store about 65% to 70% of the body's total blood volume

Blood appears darker in color

Blood flows in a slow manner

Cappilaries:

Are the smallest blood vessels

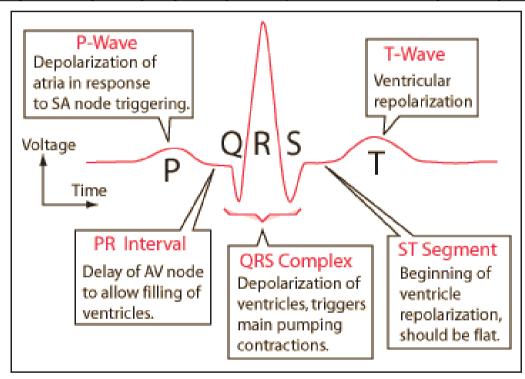
Provide a link from arterioles to venules

All gas exchange occurs at this level

Walls are very thin to allow for gas and nutrient exchange

#### Discuss briefly normal Components of ECG?

Graphic recording of changes in potential generated by transmission of cardiac impulse through the heart"



## In which form iron is present in hemoglobin?

Iron is required for Hb synthesis and it is present in Fe<sup>++</sup> form(ferrous form)

# What are Endocrine, paracrine, autocrine, neuroendocrine signaling? Differentiate with Examples.

Endocrine signalling uses chemicals called hormones to send messages throughout the body. The hormones are released from the cell into the bloodstream and can travel around the entire body.

e.g production of FSH and LH from anterior pituitary secreted into blood stream and act on target(ovary) that is far away from its site of production.

Neuroendocrine cells are cells that receive neuronal input (neurotransmitters released by nerve cells or neurosecretory cells) and, as a consequence of this input, release message molecules (hormones) to the blood. In this way they bring about an integration between the nervous system and the endocrine system, a process known as neuroendocrine integration.

An example of a neuroendocrine cell is a cell of the adrenal medulla (innermost part of the adrenal gland), which releases adrenaline to the blood. The adrenal medullary cells are controlled by the sympathetic division of the autonomic nervous system

Paracrine signaling is a form of cell-cell communication in which a cell produces a signal to induce changes in nearby cells, altering the behavior or differentiation of those cells.

E.g. production of Prostaglandins and its action is paracrine.

Autocrine signaling is a form of cell signaling in which a cell secretes a hormone or chemical messenger (called the autocrine agent) that binds to autocrine receptors on that same cell, leading to changes in the cell.

Cancerous cell action is autocrine.

## What are different VFAs produced in rumen and their fate in blood?

Acetic acid

Butyric acid

Propionic acid

50-60% of VFAs produced is acetic acid. It predominates on a high roughage diet and is a precursor for mammalian milk fat. Some is also used for muscle metabolism and body fat.

12-18% of VFAs produced is propionic acid. It predominates on a high concentrate diet and provides energy via the conversion of blood glucose in the liver

18-20% of VFAs produced is butyric acid. Comes out from rumen as B-hydroxybutyric acid and it is oxidized by many tissue to produce energy.

#### **Pathology**

## The most characteristic lesions seen in buffaloes died due to HS are?

widespread hemorrhages, edema and hyperemia. Subcutaneous edema is usually present in the submandibular region and neck, sometimes extending to the brisket. The lymph nodes may be enlarged, and the thoracic and abdominal cavities and pericardial sac often contain blood–tinged fluid. Petechiae are frequently found on many organs, especially on the serosal surface, throughout the body.

# The most significant findings at postmortem examination in animals died due to contagious bovine pleuropneumonia are?

The thoracic cavity may contain up to 10 L of clear yellow or turbid fluid mixed with fibrin flakes, and the organs in the thorax are often covered by thick deposits of fibrin. The disease is largely unilateral, with more than 80%–90% of cases affecting only one lung. The affected portion is enlarged and solid. On section of the lung, the typical marbled appearance of pleuropneumonia is evident.

## Pulpy kidney disease in lambs, the postmortem findings?

Swollen and oedematous lungs, swollen, congested, soft and pulpy kidneys, haemorrhages (peticheal and echymotic) on most organs, full urinary bladder, urine with high glucose, the intestine appear congested, thin and may contain haemorrhages with segmental gas distention, pericardial effusions and effusions in abdominal and thoracic cavity.

## Postmortem findings with gross and microscopic changes in cattle died due to paratuberculosis?

the carcass may be thin or emaciated. Dependent edema can sometimes be seen, and fluid may be found in the body cavities. The characteristic lesion is a thickened, often corrugated, wall in the distal small intestine. In more advanced cases, the lesions can extend from the duodenum to the rectum. The mesenteric lymph nodes and other regional nodes are often enlarged and edematous. Histologically, the lesions are characterized by diffuse granulomatous enteritis, with the accumulation of epithelioid macrophages and giant cells in the intestinal mucosa and submucosa. Acid-fast organisms may be found inside macrophages.

#### In dysplasia, the microscopic changes are:

There is cell atypia and disorderliness.

Loss of uniformity of the individual cells and loss of architectural orientation.

Cellular atypia is characterized by pleomorphism and hyperchromasia

Mitotic figures are seen in abundant cells.

## The gross changes in necrosis are:

Lighter colour (coagulation of proteins, reductio of blood supply)

May be swollen area or depressed

May be softer to touch

Loss of Strength

Red Zone of Congestion (2-3 days old)

Coagulated, Creamy liquid or Dry crumbly

## In hypoxaemia due to too little oxygen in the blood, the situation may be that:

There is too little oxygen in the air

Failure to properly ventilate the lungs

Failure of the lungs to properly oxygenate the blood

Failure of the heart to pump enough blood through the lungs

Tremendously increased dead space (i.e., pulmonary thromboembolus)

# The oxygen independent mechanism in phagocytosis and Microbicidal Mechanism by defence cells includes:

The lysozyme attacks bacterial cell walls of especially gramnegative bacteria (digest muramic Acid in membrane)

Lactoferin is microbicidal at acid pH

Cathepsin G (a protease) is antibacterial activity against gram negative and gram positive bacteria and some of the fungi.

Phagocytin can also lyse the bacterial cell membranes,

defensins have broad spectrum activity and kills gram positive, gram negative bacteria, some of the fungi and certain enveloped viruses.

#### What factors lead to reduced erytheropoiesis.

Ans.

#### 1. Anemia due to chronic disorders

Chronic inflammation

Neoplasia

## 2. Cytotoxic bone marrow demage

Cytotoxic drugs

Estrogen

Furazolidone

Phenylbutazone

Radiation

# 3. Lack of erytheropoiten

Chronic renal disease

Hypoadrencorticisim

Hypethyridisim

#### 4. Immune mediated anemia

Pure red cell aplasia

#### 5. Infection

Ehrilichia

Feline leukemia virus

Feline pan leucopenia virus

Parvovirus

Trichostrongyloids

#### 6. Myelopathies

Lymphocytic leukemia

Metastatic neoplasia

Myeloproloferative disorder

Osteprosis

## In which situations Schistocytes appear in blood.

Hemolytic anemia

Thrombosis of small blood vesels

Splenic neoplasm

#### What is toxic granulation of neutrophils.

Neutrophils contain dark purple and coarser granules than normal. At times the cytoplasm is basophilic and vacuolated. They are seen in severe infection and other toxic states that interfere with normal cytoplasm maturation and thus inhibits normal transformation of granules.

# Name and principle of detection of blood in urine, name the diseases in which hematuria is observed in animals.

#### **Benzidine Test**

Principle: Oxygen is liberated from hydrogen per oxide when it reacts with peroxidase in blood, which is indicated by indicator green or blue in colour.

#### Diseases

Anthrax,

Leptosprosis

Canine Hepatitis

Dioctophyma Renale infection

#### **Institute of Microbiology**

## Draw sketch diagram of observational epidemiological studies

A) Descriptive epidemiological studies, longitudinal (retrospective & prospective) & vertical epidemiological studies. B) Analytical epidemiological studies, it includes; case-control, cohort and cross-sectional epidemiological studies.

#### What is Veterinary Public Health, enlist its salient components

<u>VPH</u>: sum of all contributions for disease prevention, prevention of zoonotic diseases, prolonging life and promoting physical health in a population. <u>Salient components</u> are; sanitation of environment, control of community infections through vaccination, adaptation of principles of personal hygiene, education of community about diseases, early diagnosis and treatment.

#### Parasitology

## Describe congenital toxoplasmosis

Intracerebral calcification (toxoplasmic encephalitis) – fever, severe headache, convulsions

Chorioretinitis (Ocular toxoplasmosis) - Inflammation of choroid and retina

Hydrocephaly – accumulation of CSF in brain

## What is apical complex in apiconplexan parasites?

The sporozoite of apicomplexan parasites possesses distinct structures in an apical complex, which consists of a set of spirally arranged <u>microtubules</u> (known as conoid), a club-shaped secretory body – the <u>rhoptry</u>, one or more polar rings, and additional slender dense secretory bodies – micronemes

#### What are various risk factors associated with the occurrence of babesiosis and theileriosis?

- (1) The virulence of the particular species of Babesia
- (2) The age of the host
- (3) The immune status of the host
- (4) The level of tick challenge
- (5) Stress

### What is undulating membrane?

In some Protozoan species, the cell membrane (pellicle) is pulled up to form an undulating membrane. It enhances motility of the parasite in a viscous fluid, such as blood.

#### What are various locomotory organs in protozoa?

Whip-like tails called flagella (5-10 µm long)

Hair-like structures called cilia (20-30 µm long)

Foot-like structures called pseudopodia (2 µm and thick by 20 µm)

#### Name any four Genera of superfamily Trichostrongyloidea.

Genra included in this superfamily are *Dictyocaulus*, *Ostertagia*, *Cooperia*, *Nematodirus*, *Haemonchus*, *Trichostrongylus*.

## Write a note on effects of ostertagia on its final host.

Ostertagia spp. affect their hosts in several complex interactions involving structural, biochemical, hormonal, nutritional and immunological mechanisms. Following infection with Ostertagia spp. the specialised secretory function and junctional integrity of gastric epithelial cells is lost. The pH of the abomasal contents is elevated and pepsinogen concentration in the plasma increases. There is a concurrent elevation in the concentration of blood gastrin. The effects may be a response to the physical interaction of parasite with epithelial cells, may be mediated through parasite excretory/secretory products, or by neural mechanisms. There may also be interactions between the responses since elevated abomasal pH stimulates secretion of gastrin. Hormonal changes may also have a role in the increased susceptibility of host to parasite during the periparturient period. Prolactin was considered the most likely hormone candidate although there is now a body of evidence to suggest that elevated prolactin concentrations are not solely responsible. Infection with Ostertagia spp. causes a marked inappetance, negative nitrogen balance and reduction in apparent gross energy digestion. The level of nutrition may also affect the response of the host to the parasites and establishment of O. circumcincta is lower in animals on a low plane of nutrition than those on a high plane. Immunity of Ostertagia spp. develops slowly and once established is manifest following challenge by an initial hypersensitivity response, followed by a cell mediated response and then an antibody response. Parasites may fail to establish or may be expelled from immune animals and if they do establish may be stunted with small vulval flaps and lower biotic potential and may become inhibited at the early fourth stage of development.

# How Haemonchus contortus can be identified with naked eye?

Haemonchus contortus are known as "Barber pole worm" or "Blood worm". The worms are large (1.5 to 3.0 cm), easily visible to the naked eye and the female oviduct is visible as a white stripe around the red blood-filled intestine, giving a barber-pole appearance. Eggs are typical of the Trichostrongyloidia Superfamily. The males are smaller, and appear red

### Write a short note on the self-cure phenomenon in haemonchosis.

In endemic areas, sometimes FEC in *H. contortus* infected sheep drops sharply followingheavy spells of rain due to expulsion of the adult worm population from the abomasum. Thisphenomenon is described as the self-cure phenomenon which is due to super infection by largenumbers of L3 that are released from feces following the rain which are ingested over a veryshort period of time. Immunologically, this phenomenon is attributed to the development ofimmediate or type-I hypersensitivity to the larval antigens mediated by IgE (Mitchell et al., 1983;Smith et al., 1984; Yakoob et al., 1983). The sensitization to worm antigens has already occurred with the current established population of worms and upon subsequent exposure to incominginfection the immediate type of hypersensitivity takes place that leads to expulsion of adultworms (Miller, 1984; Urquhart et al., 1996a)

## Explain the Clay pipe stem liver.

A characteristic pipe-shaped fibrosis formed around hepatic portal veins in some cases of long-continued heavy infection with *Schistosoma mansoni*; thought to be induced by the presence of large numbers of schistosome eggs in the hepatic tissues. This is also called as "Symmers clay pipestem fibrosis" or "Symmers fibrosis"

A descriptive term for the histologic appearance—portal vein fibrosis with hyaline thickening and tortuosity of vessels—of portal spaces in liver involvement by *Schistosoma mansoni* and *S. mekongi*; schistosomal hepatopathy mimics cirrhosis with hepatosplenomegaly, portal hypertension, secondary hypertension, and variceal bleeding; native architecture is preserved

#### What are the complications of fasciolosis? write a brief note.

The disease involves a serious infection of the bile ducts whereby the adult flukes in it causes hyperplasia or an abnormal proliferation of cells in the region causing undesirable inflammation and enlargement. The resulting cholangitis (inflammation of bile ducts) and cholecystitis (inflammation of pancreas) may cause an obstruction in the bile ducts inhibiting the flow of the bile. This condition causes permanent damage to the bile ducts of the liver and gall bladder and in rare circumstances has led to cholangicarcinoma (cancer of the bile ducts).

## How you will differentiate between Spastic and Flaccid paralysis?

#### Flaccid Paralysis

An abnormal condition characterized by the weakening or the loss of muscle tone. It may becaused by disease or by trauma affecting the nerves associated with the involved muscles.

Flaccid paralysis is paralysis or reduced muscle tone without other obvious cause. Flaccid paralysis is caused by diseases or trauma. This condition is due to affected nerves, which are involved in muscle action. Flaccid paralysis can be fatal depending on which muscles are affected. Acute flaccid paralysis can also be caused by other pathogens like enteroviruses. Botulism is caused by a bacterium known as *Clostridium botulinum*. The main route of its entry is through the digestive tract. Sometimes it may enter through wounds. A toxic substance produced by *Clostridium botulinum* blocks the release of acetylcholine. Due to this the muscles lose the ability to contract. Curare is a toxin. It is taken from a plant grown in the rainforests of South America. The toxin binds to the acetylcholine molecule which makes it unable to bind to the acetylcholine receptors on the muscle cells. Due to this, the muscles cannot be stimulated.

## **Spastic Paralysis**

An abnormal condition characterized by the involuntary contraction of one or more muscles with associated loss of muscular function. Spastic paralysis is also a form of paralysis which is is involved with unusual tightness of the muscles. It changes skeletal muscle performance in muscle tone involving hypertonia. This is a condition that arises when the nerves coordinating the voluntary muscle actions are disabled. During this condition, the nerves controlling muscle movement becomes hyperirritable. Due to this the skeletal muscles become unable to function in a coordinated manner.

#### **Define Instar?**

An **instar** is a developmental stage of arthropods, such as insects, between each moult (*ecdysis*), until sexual maturity is reached. Arthropods must shed the exoskeleton in order to grow or assume a new form. Differences between instars can often be seen in altered body proportions, colors, patterns, or changes in the number of body segments. After moulting, i.e. shedding their exoskeleton, the juvenile arthropods continue in their life cycle until they either pupate or moult again. This period of growth, instar, is fixed. Some arthropods can continue to moult after sexual maturity, but the stages between these subsequent moults are generally not called instars.

## **Define metamorphosis?**

It is process of transformation from an immature form to an adult form in two or more distinct stages. A change in the form and often habits of an animal during normal development after the embryonic stage. *Metamorphosis* includes, in insects, the transformation of a maggot into an adult fly and a caterpillar into a butterfly and, in amphibians, the changing of a tadpole into a frog.

#### Enlist any four orders of class arachnida

1-Order Acari (ticks and mites)

2- Araneae (spiders)

3-Scorpions ( scorpion spp)
4-Shizomeda (soft-bodied arachnid similar to whip scorpions)
5-Opiliones (spider like insects)
Enlist the pathogens tranmited by tabanus spp?
1-Trypnosomiasis (Dourine)
2-Anthrax
3-filariasis (in mammals)
4-Africon swine Fever
5-Equine infectious Anemia
6-Tularemia (rabbit fever and deer fly fever)
7-Africon horse sickness

8-Anaplomosis