

**MCQ'S FOR ENTRY TEST DEPARTMENT OF
THERIOGENOLOGY**

1. Anestrous in bovines is usually due to cyst.
 - A. Follicular cyst
 - B. Luteal cyst**
 - C. Cystic corporalutea
 - D. none of these

2. Basal level of luteinizing hormone (LH) in blood of bovine is.....ng/ml.
 - A. 2-6**
 - B. 8-10
 - C. 10-12
 - D. 10-15

3. Ovulation fossa is present in
 - A. Cattle
 - B. Buffalo
 - C. Mare**
 - D. Cat

4. Ovulation occurs in alternate ovaries in animals.
 - A. Cattle
 - B. Buffalo
 - C. Mare
 - D. Camel**

5. Estrous cycle length in sheep isdays.
 - A. 21**
 - B. 17
 - C. 20
 - D. D.22

6. Estrous period in bitch isdays.
 - A. 3
 - B. 5
 - C. 9**
 - D. D.20

7. Induced ovulation naturally occurs inanimals.
 - A. Cat
 - B. Camel
 - C. Rabbit
 - D. All of above**

8. Progesterone concentration during diestrus in bovines isng/ml.
- A. **6-10**
 - B. 15
 - C. 18
 - D. None of these
9. What is the chemical nature of GnRH.
- A. Fatty acid
 - B. **Polypeptide**
 - C. Steroid
 - D. Glycoprotein
10. The inhibin hormone selectively suppresses the secretion ofhormone.
- A. FSH & LH
 - B. **FSH**
 - C. LH
 - D. all of above
11. A corpus luteum of pregnancy is also known as
- A. Corpus luteum sporium
 - B. **Corpus luteum verum**
 - C. Corpus albicans
 - D. None of these
12. Absence of sperm in the semen is called
- A. Anspermia
 - B. Oligospermia
 - C. Azoospermia
 - D. Haemospermia
13. Average ejaculation volume in normal adult ram isml.
- A. **0.5-2**
 - B. 5
 - C. 7
 - D. 10
14. Chemically testosterone is a
- A. Fatty acid
 - B. Polypeptide
 - C. **Steroid**
 - D. Glycoprotein
15. Leydig cells produce.....hormone.
- A. Estrogen
 - B. **Testosterone**
 - C. FSH

- D. All of these
16. A freemartin heifer is born
- A. Single
 - B. As co-twin female
 - C. As co-twin male and female**
 - D. As hermaphrodite
17. Developing follicle is.....than regressing follicle.
- A. Softer**
 - B. Harder
 - C. None of these
 - D. All of above
18. Follicular phase includes
- A. Estrous and metestrous
 - B. Estrous and Proestrous**
 - C. Estrous
 - D. Diestrous
19. Mid-cycle heat is usually occurs at.....day of estrous cycle.
- A. 5-6
 - B. 9-10**
 - C. 12
 - D. 15
20. Giraffian follicle is also known as
- A. Primary follicle
 - B. Secondary follicle
 - C. Tertiary follicle**
 - D. All of above
21. In case of mummification
- A. CL is present**
 - B. CL is absent
 - C. cervix is open
 - D. both B and C
22. In case of maceration
- A. CL is present
 - B. CL is absent
 - C. Cervix is open
 - D. both B and C**
23. Age at puberty in cat is.....month.
- A. 6-8**

- B. 10-12
 - C. 12-15
 - D. 18
24. Placental lactogen is by placenta of cow during.....trimester.
- A. First
 - B. Second
 - C. Third**
 - D. All of above
25. For superovulation in bovines,hormone is used
- A. PMSG**
 - B. HCG
 - C. GnRH
 - D. LH
26. Source of relaxin hormone is
- A. Ovary**
 - B. Placenta
 - C. both A and B
 - D. none of these
 - E.
27. Half-life of LH hormone is.....minutes.
- A. 25-30**
 - B. 30-40
 - C. 50-60
 - D. none of these
 - E.
28. LH is a..... hormone.
- A. Fatty acid
 - B. Polypeptide
 - C. Steroid
 - D. Glycoprotein**
29. In male.....hormone stimulates the growth of seminiferous tubules.
- A. FSH**
 - B. LH
 - C. P4
 - D. E2
30.is stored in the median eminence of brain
- A. FSH
 - B. LH
 - C. P4
 - D. GnRH**

31. Ejaculate volume in stallion is.....ml.
A. **40-120**
B. 200
C. 5-10
D. None
32. Spermatogenesis include.....divisions.
A. Meiotic
B. Mitotic
C. **both A and B**
D. none of these
33. How many phases are there in spermeiogenesis
A. 1
B. 2
C. 3
D. **4**
34. Normal osmotic pressure of semen in cows is
A. **285 milliosmole**
B. 310 milliosmole
C. 320 milliosmole
D. None
35. Diffused placenta is a feature of
A. Cats
B. Rats
C. **Mare**
D. Bitch
36. Functionally HCG predominantly likehormone.
A. FSH
B. **LH**
C. GnRH
D. P4
37. Ovulation in cattle occurs
A. at the beginning of heat
B. at the mid of heat
C. at the end of heat
D. **10-14 hours after the end of heat**
38. In cattle oxytocin is synthesized in
A. hypothalamus only
B. **hypothalamus and CL**
C. Ovary

- D. Uterus
39. Sperm capacitation in cattle mostly occurs in
- A. Vagina
 - B. Cervix
 - C. Uterus
 - D. Uterus and fallopian tube**
 - E.
40. In the cow during natural mating, the semen is ejaculated in the
- A. Cervix
 - B. Vagina**
 - C. Uterus
 - D. Oviduct
41. The normal process of parturition is initiated by
- A. Dam
 - B. Calf**
 - C. Environment
 - D. None of the above
 - E.
42. The disadvantage of using paravertebral anaesthesia is
- A. Bloat
 - B. Vasodilatation**
 - C. Delayed healing
 - D. All of the above
43. Best approach to deliver dead calf via cesarean section is
- A. Midline approach
 - B. Ventro-lateral approach**
 - C. Right flank approach
 - D. Left flank approach
44. Use of xylazine as a sedative in cesarean section can lead to
- A. Muscle cramps
 - B. Bloat
 - C. Increased Uterine contractions
 - D. Both B & C**
45. Torsion is defined as
- A. Rotation of uterus on its longitudinal axis**
 - B. Rotation of uterus with intestine
 - C. C Rotation of uterus with mesentary
 - D. All of the above
46. Animal is restrained on _____ recumbency in case of left sided torsion of uterus.
- A. Right lateral recumbency
 - B. Left lateral recumbency**

- C. Sternal recumbency
 - D. Dorsal recumbency
47. Animal is rotated in _____ direction in case of right sided uterine torsion
- A. Clockwise**
 - B. Anti-clockwise
 - C. North-east
 - D. South-west
48. Vaginal prolapse is seen mostly
- A. After calving
 - B. Few weeks after calving
 - C. During last trimester**
 - D. Any time
49. Caslick sutures are also referred as
- A. Vulvoplasty**
 - B. Vaginoplasty
 - C. Angioplasty
 - D. All of the above
50. Vaginal prolapse can be controlled by
- A. Manchieve's technique**
 - B. Cesarean section
 - C. Episiotomy
 - D. None of the above
51. Uterine prolapse seldom occurs
- A. Immediately after calving
 - B. Few hours after calving
 - C. In last trimester**
 - D. All of the above
52. One can reduce the size of prolapsed mass of uterus by application of
- A. Hypertonic solutions**
 - B. Hypotonic solutions
 - C. Isotonic solution
 - D. None
53. Krey's hook must be applied
- A. On medial canthus of live calf
 - B. On medial canthus of dead calf**
 - C. On brisket region of live calf
 - D. All of the above

54. A case of uterine torsion with adhesion can be resolved by
- A. Rotational method
 - B. Schepher's plank method
 - C. Fetotomy
 - D. Cesarean section**
55. Puerperal period is defined as
- A. Period soon after calving
 - B. Period soon after first conception
 - C. Period after first post partum heat**
 - D. None of the above
56. Fetotomy can be performed by
- A. Percutaneous method**
 - B. Subcutaneous method
 - C. Both A & B
 - D. None of the above
57. One of the following can increase the length of effect of epidural anaesthesia with lignocaine
- A. Adrenaline**
 - B. Vasodilators
 - C. Both A&B
 - D. None of the above
58. Vaginal prolapse can be prevented by
- A. Administration of progesterone
 - B. Truss application
 - C. Caslick sutures
 - D. All of the above**
59. One can prevent uterine prolapse after calving by
- A. Administration of oxytocin
 - B. Administration of calcium
 - C. Administration of progesterone
 - D. Both A&B**
60. Induction of parturation can be achieved by
- A. Non-steroidal anti-inflammatory drugs
 - B. Short chain fatty acids
 - C. Steroids and prostaglandins**
 - D. None of the above
61. A cow with vaginal prolapse that has been necrosed and fibrosed would be considered as
- A. First degree
 - B. Second degree
 - C. Third degree
 - D. Fourth degree**
62. A case of feto pelvic disproportion with live fetus can be best dealt by

- A. Fetotomy
 - B. Cesarean section**
 - C. Traction
 - D. Retropulsion
63. A cow can be operated for fetal delivery using
- A. Epidural anesthesia
 - B. Paravertebral nerve block
 - C. Both A and B**
 - D. None of the above
64. First stage vaginal prolapse
- A. Is reduced when animals eats
 - B. Is reduced when animal stands up**
 - C. Is reduced when animal drinks
 - D. Has to be reduced mechanically
65. Vaginal prolapse can be prevented by
- A. Manchieve's technique
 - B. Truss application
 - C. Buhner's sutures
 - D. All of the above**
66. Scientist who got Nobel Prize in Physiology and Medicine for his pioneering work in in-vitro fertilization dating back to the late 1970s.
- A. Robert G. Edwards**
 - B. Carol W. Greider
 - C. Jack W. Szostak
 - D. John F Gurdon
67. Cuboni test is used to detect estrogen
- A. Blood
 - B. Serum
 - C. Urine**
 - D. Milk
68. Neosporacanium causes abortion in
- A. Horse
 - B. Dog
 - C. Cattle**
 - D. Camel
69. Early pregnancy factor in cattle appear as early as
- A. 24hrs of pregnancy**
 - B. 48hrs of pregnancy
 - C. 10 day of pregnancy
 - D. 30 days of pregnancy

70. Decending of uterus is started at
- 3 month of pregnancy
 - 5 month of pregnancy**
 - 6 month of pregnancy
 - 4 month of pregnancy
71. During pseudopregnancyin there is increase in the level of
- progesterone
 - Prolactin**
 - Relaxin
 - LH
72. Following are venereal disease in cattle
- Brucellosis
 - Leptospirosis
 - Compylobacteriosis**
 - Salmonellosis
73. Upward deviation of head of fetus in maternal birth canal is known as
- Pole head
 - Wry head**
 - Vertex
 - Breech head
74. Estimated pelvic area growth has beenper day in cows range from
- 0.27 sq. cm/day from yearling to 2 year old heifers.**
 - 0.22 sq. cm/day from yearling to 2 year old heifers.
 - 0.27 sq. cm/day from yearling to 1 year old heifers.
 - 0.25 sq. cm/day from yearling to 2 year old heifers.
75. Herniation in mare in advance pregnancy is due to
- Rupture of rectiibdominis muscles
 - ii)Rupture of the abdominal muscles
 - iii)**Rupture of prepubic tendon**
 - iv) Rupture of internal obliques
75. Coxo femoral luxation in cow is known as
- Dislocation of the pin bone
 - Dislocation of the hip bone**
 - Excessive relaxation of oscoxae
 - Relaxationsacro sciatic ligament.
76. Melengestrol Acetate (MGA) is given as

- A. i) **Orally progestin**
- B. ii) Intrauterine progestin
- C. iii) Intramuscular progestin
- D. iv) intravenous progestin

77. Females of sheep reach the age of puberty at the

- A. 7–18 months
- B. **6–15 months**
- C. 4–8 months
- D. 6–8 months

78. Ovulation is a spontaneous process in all domestic species with the exception of the

- A. **Camel**
- B. Sheep
- C. Sow
- D. Poultry

79. Peptide hormone in ovarian follicular fluid which stimulates FSH secretion has been designated as.

- A. **Activin**
- B. follistatin
- C. IGF-1
- D. β -endorphin

80. Luteal regression is caused by episodic release of $\text{PGF}_{2\alpha}$ from the uterus and oxytocin secreted by the

- A. Uterus
- B. **CL**
- C. Anterior pituitary
- D. oviduct

81. The body temperature of dairy cows

- A. i) **Falls 0.5°C the day before oestrus**
- B. ii) Increases 0.5°C the day before oestrus
- C. iii) Remains the same
- D. iv) Increases 1°C the day before oestrus

82. Half-life of FSH is

- A. **3hrs**
- B. 24 hrs
- C. 12hrs
- D. 6hrs

83. Embryonic attachment to the uterus occurs at the following time in cow

- A. 10 days
- B. 15 days

- C. 20days
- D. 12 days**

84. The placenta described as being synepithelialchorial is found in

- A. Horse
- B. Sheep**
- C. Cat
- D. Rodent

85. Urovagina is condition in cattle due to

- A. Rupture of uterus in vagina
- B. Collection of urine in vagina**
- C. Damage of the cervix
- D. Tumor in the vagina

86. dose rate of HCG to cause superovulation is

- A. 3000–4500 i.u.**
- B. 1000-2000i.u
- C. 1500-2500i.u
- D. 5000-5500i.u

87. Under the effect of progesterone reproductive tract is

- A. no effect on infection
- B. less prone to infection
- C. highly resistant to infection
- D. more prone to infection**

88. The best conception rates occur in cow if insemination is carried out in the

- A. 13–18 hours before ovulation**
- B. 10-12 hours after ovulation
- C. 8-10 hours before ovulation
- D. 6 hours after ovulation

89. If cows with luteinised cysts are left untreated then a proportion of them will become

- A. nymphomaniac
- B. ii) Sterile
- C. iii) virilised**
- D. iv) Docile

90. Vaginal mucus agglutination test is used to diagnose

- A. Brucellosis
- B. Listeriosis
- C. Infectious bovine Rhinotracheitis
- D. Trichomoniasis**

91. Which of the following test can be used for diagnosis of brucellosis?
- A. IHAT
 - B. ii)FAT
 - C. MRT**
 - D. AGPT
92. Q fever, caused by *Coxiella burnetii*, can cause abortion and stillbirth in
- A. Sheep**
 - B. Cow
 - C. Horse
 - D. Camel
93. Cystic endometrial hyperplasia in bitch is also known as
- A. pyometra**
 - B. Metritis
 - C. Mucometra
 - D. Pupuralmetritis
94. Age at which testes descend into the scrotum in bull is
- A. 5-6.5 month of gestation
 - B. ii) 3.5–4 months of gestation**
 - C. iii) 2-3 months of gestation
 - D. iv) 7.5-8 months of gestation
95. enzymes contained within the acrosome
- A. acrosin and testosterone
 - B. acrosin and fructose
 - C. acrosin and hyaluronidase**
 - D. acrosin and pyruvate
96. Protoplasmic droplets of sperm are
- A. normally present at the time of ejaculation in sire
 - B. Sires that are being overused**
 - C. is present only in sire after first ejaculation
 - D. sire that have some kind of infection
97. Vitrification of embryo means
- A. cooling of embryo
 - B. Freezing of embryo
 - C. Changing the embryo into glass**
 - D. None of above
98. Percentage of cryoprotect is used for freezing

- A. i)10%
- B. ii) 20%
- C. iii)30%
- D. iv) 25%

99. The durations of spermatogenesis in buffalo is

- A. **38 days**
- B. 45days
- C. 34days
- D. 48days

100. A high incidence of true anoestrus occurs in buffalo

- A. Cool winter months
- B. Autumn
- C. **Hot summer months**
- D. Spring

101. Ovulation occur only at one location

- A. **Mare**
- B. ii) Camel
- C. iii) bitch
- D. iv) Goat

102. The oocytes within a secondary follicle is surrounded by

- A. Antrum
- B. Tertiary follicle
- C. **ZonaPellucida**
- D. Polar bodies

103. The smallest diameter in oviduct is

- A. Ampula
- B. **Isthmus**
- C. Infundibulum
- D. fimbrae

104. Bicornuate uterus is found in

- A. **Horse**
- B. Monkeys
- C. Rabbit
- D. Rat

105. Longitudinal folds in cervix is present in

- A. Cow

- B. Sheep
- C. Goat
- D. Mare**

106. Testies are located inside the body in

- A. Yak
- B. fox
- C. Elephant**
- D. rabbit

107. Accessory sex gland are dependent for their full development and function on

- A. Testosterone**
- B. LH
- C. FSH
- D. Inhibin

108. Testies Determining Factor (TDF) is substance that control the development of

- A. Male
- B. ii) Female
- C. iii) Both male and female**
- D. iv) Neither of them

109. Progesterone hormone is

- A. Glycoprotein
- B. fatty acid
- C. Protein
- D. Steroid**

110. Prolactin is produce from

- A. Chorionic gurdle cells
- B. Placenta
- C. Anterior lobe of pituitary**
- D. Uterine endometrium

111. Media used for maturation of oocyte in IVF

- A. TALP media
- B. CZB
- C. TCM199**
- D. Percoll

112. Oocyte recovered from live animal by ultrasound guided method is known as

- A. Dissection method
- B. ovum pick up method**

- C. Puncture method
- D. Aspiration method

113. Methods used for sperm preparation is

- A. **Percoll density gradient**
- B. Swim down method
- C. Similac gradient method
- D. Volumetric method

114. Longest phase of estrus cycle is

- A. proestrus
- B. estrus
- C. metestrus
- D. **diestrus**

115. Follicle has consistency like

- A. liver
- B. **ii) fluid**
- C. iii) cardiac muscle
- D. iv) Skin

116. Cervical seal is formed during

- A. **Pregnancy**
- B. Diestrus
- C. Estrus
- D. Anestrus

117. Hormone secreted from dominant follicle is

- A. Activin
- B. progesterone
- C. prolactin
- D. **Inhibin**

118. Breeding season in mare is

- A. Winter
- B. Spring
- C. **Summer**
- D. Autumn

119. In cow primary sex organ consists of

- A. **Ovary**
- B. ii)uterus
- C. cervix

D. Fallopian tube

120. Dog has placenta

A. Diffuse

B. Cotyledonary

C. Zonary

D. Discoid

121. Lamb born in autumn reach to puberty

A. 6-7 months

B. 12-13 months

C. 15 months

D. 4 months

122. Seasonally polyestrous short day breeder are
- A. Cow
 - B. ii) Mare
 - C. iii) Dog
 - D. iv) **Ewe**
123. Melatonin is secreted by
- A. **Pineal gland**
 - B. Pituitary gland
 - C. Sebaceous gland
 - D. Thyroid gland
124. Luteal cells consists of small luteal cells derived from
- A. Granulosa cells
 - B. **Theca interna cells**
 - C. Cumulus cells
 - D. Sertoli cells
125. The role of Leydig cells is
- A. Nourishment of sperms
 - B. Give motility to sperms
 - C. **Synthesize testosterone hormone**
 - D. Undergo spermatogenesis
126. Oocytes undergo cortical reaction to prevent
- A. **Polyspermy**
 - B. azoospermia
 - C. Decapacitation
 - D. Vesiculation
127. 16 cell stage embryo is known as
- A. Blastocyst
 - B. **Morula**
 - C. Hatched blastocysts
 - D. Trophoblast
128. Cryopresevation of embryo can be at
- A. hatched blastocyst
 - B. blastomere
 - C. **Blastocyst**
 - D. Blastocoele
129. Maternal recognition of pregnancy must occur

- A. After implantation
- B. ii) Before luteolysis**
- C. iii) Before implantation
- D. iv) Within 24 hrs**

130. Time of attachment of embryo in cow after ovulation is

- A. 18-22days**
- B. 14-18 days
- C. 12-16days
- D. 23-25days

131. Endometrial cups are present in

- A. Cow
- B. sheep
- C. iii)Mare**
- D. camel

132. Placentomes in cattle become palpable at

- A. 90-100**
- B. 60-100
- C. 80-150
- D. 90-120

133. Gestation length in Camel is

- A. 11.3 months
- B. 12 months
- C. 11months
- D. 12.3 months**

134. Which one is unpaired gland in male reproductive system

- A. Seminal vesicle
- B. Cowper's gland
- C. Prostate gland**
- D. Lacrimal gland

135. Which one is not associated with gametogenesis?

- A. Formation of ova
- B. Formation of spermatid
- C. Release of ova**
- D. Change of spermatids of spermatozoa

136. Which one is involved in nourishing spermatozoa's?

- A. Leydig cells

- B. ii) Gubernaculum
 - C. iii) **Sertoli cells**
 - D. iv) Interstitial cells
137. Which one is initiated by secretion of trophoblast?
- A. Blastulation
 - B. Cleavage
 - C. Gastrulation
 - D. **Implantation**
138. Which one functions as endocrine gland after ovulation?
- A. Stroma
 - B. Vitelline Membrane
 - C. Germinal epithelium
 - D. **Graafian follicle**
139. Which of the following is a gonad?
- A. seminal vesicle
 - B. penis
 - C. **testis**
 - D. all of the above
140. Which of the following hormones prepares endometrium for embryo implantation?
- A. LH
 - B. **Progesterone**
 - C. FSH
 - D. Testosterone
141. Which hormone is responsible for the rupture of follicle and initiating the formation of corpus luteum?
- A. follicle stimulating hormone
 - B. luteotropin
 - C. **luteinizing hormone**
 - D. all of the above
142. When egg is not fertilized, yellow coloured corpus luteum degenerates to form
- A. **Corpus albicans**
 - B. Corpus callosum
 - C. Corpus striatum
 - D. Corporaquadrigenina
143. The membrane which holds ovary in position is called
- A. mesorchium
 - B. ii) **mesovarium**

- C. iii) parietal peritoneum
 - D. iv) mesosalpinx
144. The head of mature mammalian sperm is made of
- A. An acrosome
 - B. **Elongated nucleus covered by acrosome**
 - C. Two centrioles and an axial filament
 - D. Nucleus, acrosome, cytoplasm and mitochondrial sheath
145. The cavity contained in graafian follicle is
- A. **Antrum**
 - B. Centrocoel
 - C. Blastocoel
 - D. Archenteron
146. Testes descend into scrotum in mammals for
- A. **Spermatogenesis**
 - B. Fertilization
 - C. Development of sex organs
 - D. Development of visceral organs
147. Surgical removal of uterus is
- A. Tubectomy
 - B. **Hysterectomy**
 - C. Vasectomy
 - D. Orchidectomy
148. Sperms are stored and nourished inside
- A. testis
 - B. **Epididymis**
 - C. Seminiferous tubules
 - D. vasa efferentia
149. Site of fertilization in a mammal is
- A. Ovary
 - B. Uterus
 - C. Vagina
 - D. **Fallopian tube**
150. Seminal vesicles are located in
- A. Caput epididymis
 - B. Uterus
 - C. **Above Cowper's glands**
 - D. Glans penis
151. Polar bodies develop during

- A. **Oogenesis**
 - B. Spermatogenesis
 - C. Spermiogenesis
 - D. Soamtic hybridization
152. Part of fallopian tube closest to ovary is
- A. **Infundibulum**
 - B. Cervix
 - C. Ampulla
 - D. Isthmus
153. One primary spermatocyte produces four spermatozoa but one primary oocyte produces
- A. Four ova
 - B. **One ovum**
 - C. Two ova
 - D. Sixteen ova
154. In absence of pregnancy the corpus luteum forms
- A. corporaquadrigemina
 - B. corpus callosum
 - C. **corpusalbicans**
 - D. cruracerebri
155. The lining or inner layer of the uterus is called the
- A. cervix
 - B. vagina
 - C. labia
 - D. **endometrium**
156. In the female reproductive system, sperm follow thefollowing route
- A. Vagina, cervical canal, Fallopian tube, uterus
 - B. Vagina, Fallopian tube, cervical canal, uterus
 - C. **Vagina, cervical canal, uterus, Fallopian tube**
 - D. None of the above
157. Unfertilized ovum remains for months in the oviduct of species
- A. sow
 - B. ii) **mare**
 - C. iii) ewe and doe
 - D. iv) bitch
158. Ovulation of “primary oocyte” occurs in
- A. **mare and bitch**
 - B. ii) sow
 - C. iii) cow and doe
 - D. iv) all of the above

159. Endometrial cups are formed from
- A. **chorionic girdle (fetal origin)**
 - B. maternal caruncles
 - C. endometrium (maternal origin)
 - D. none of the above
160. Progesterone concentration at oestrus fluctuates below
- A. 10 ng/ml
 - B. 5ng/ml
 - C. **iii)1ng/ml**
 - D. None of above
161. The Hypothalamic hormone that induce the production of FSH and LH is
- A. **GnRH**
 - B. ADH
 - C. Oxytocin
 - D. THRH
162. The only Protein hormone secreted from ovary is
- A. Oestrogen
 - B. Progesterone
 - C. **iii)Relaxin**
 - D. Steroid
163. Which of the following statement is Correct
- A. **Amount of LH and FSH gradually increases towards ovulation and diminishes**
 - B. Oestrogen is maximum during gestation period
 - C. Progesterone is maximum during Pre ovulatory phase
 - D. Corpus luteum degenerates immediately after ovulation
164. The main reason for Ovulation is
- A. Rupture of Follicle
 - B. Sudden fall in Oestrogen
 - C. Sudden rise in LH
 - D. **Both b and c**
165. In which part of the Fallopian tube, fertilization occurs
- A. **Ampulla**
 - B. ii) Infundubulum
 - C. iii) Isthmus
 - D. iv) Uterine part
166. Naturally occurring and biologically most active Oestrogen is
- A. Estrone

- B. **17-b- Estradiole**
 C. Estriole
 D. All these
167. Maternal recognition of pregnancy in the mare is proposed to
- A. Result from embryonic production of interleukin-like substances.
 B. Result from endometrial production of prolactin and sialic acid.
C. Depend on the mobility of the conceptus within the uterine lumen.
 D. Result from the production of equine chorionic gonadotropin.
168. Cystic ovaries are related to high production secretion in mature cows due to
- A. Because prolactin decreases the sensitivity of graffian follicles to LH**
 A. ii) Due to high production of estrogen from the graffian follicle
 B. iii) Because high FSH level decrease sensitivity of graffian follicles to LH
 C. iv) None of these
169. Relaxin is secreted primarily during parturition.
- A. i)by adrenal cotex
B. ii)by the corpus luteum
 C. iii) by uterus
 D. iv) by placenta
170. PMSG is suitable treatment for cows suffering from
- A. **inactive ovaries**
 B. Pyometra
 C. cystic ovary
 D. synchronization
171. PGF2 is secreted from
- A. cervix
 B. ovary
C. uterus
 D. iv)Fallopian tube
172. Clinical signs of follicular cystic ovaries.
- A. i)Nymphomania**
 B. ii) Anorexic
 C. iii) Dormant
 D. iv) Resistant
173. Which one of the following signs occurs only in pregnant cows?
- A. i)dry cervical mucosa
 B. ii) fremitus in the middle uterine artery
 C. iii) an enlarged uterine horn with a corpus luteum in the ipsilateral ovary
D. iv) foetal membrane slip
174. Which one of the following methods of diagnosis would you use to identify cases of ovine brucellosis in rams if only one method was permitted?

- A. Palpation of the scrotum and contents
- B. Cytological examination of semen
- C. Bacterial examination of semen
- D. Complement fixation test**

175. It is generally regarded that the minimum time to allow a dairy calf to stay with its dam to ensure a passive transfer of antibodies in the colostrum is which one of the following

- A. 2 hours
- B. 12 hours**
- C. 2 weeks
- D. 2 months

176. The MOST important method of spread of *Brucella abortus* among cattle is

- A. ingestion**
- B. passive venereal transfer or passive sodomy
- C. placental
- D. respiratory

177. The study of abnormal development and congenital malformations?

- A. Tetanospasmin
- B. Tensilon test
- C. Teratology**
- D. Thiaminase

178. hormones secreted by pineal glands

- A. Melatonin**
- B. ii) inhibin
- C. Activin
- D. Prolactin

179. Which gland secretes Corticoid hormones

- A. Anterior Pituitary
- B. ii) Adrenal Glands**
- C. iii) Hypothalamus
- D. iv) Thymus

180. Time required for complete uterine involution in dairy cow is

- A. 30days
- B. 90 days
- C. 30-50 days
- D. 45-50 days**

181. oxytocin is secreted from

- A. anterior lobe of pituitary
- B. posterior lobe of pituitary**
- C. hypothalamus
- D. adrenal cortex

182. the only reliable indication of oestrus is that the cow will

- A. Increased mucus secretion in the cervix and vagina
- B. Bellowing
- C. Restlessness
- D. stand to be mounted**

183. Sexing of semen can be done by

- A. PCR
- B. flowcytometry**
- C. karyotyping
- D. Bracket and Oliphant method

184. Birth of young as a result of embryo transfer was done by

- A. i)Heape**
- B. ii) Warwick and Berry
- C. iii) Kvensnicki
- D. iv) Oguri and Tsutsumi

185. Invasive method of embryo sexing is

- A. PCR**
- B. ii)ELISA
- C. iii)CFT
- D. iv) HAT

186. H-Y Antigen is located on

- A. Short arm of Y chromosome
- B. ii)Long arm of Y chromosome**
- C. X chromosome
- D. HEL gene

187. All the female mammals are X chromosome mosaic

- A. i)due to activation of their one X chromosome
- B. ii)due to inactivation of their XX chromosome
- C. iii)due to activation of their XX chromosome
- D. iv)due to inactivation of their one X chromosome**

188. Dolly was the first mammal to be cloned from

- A. adult somatic cell**
- B. ii) Nuclear cells
- C. iii) oocyte
- D. iv) embryo

189. X chromosome contains

- A. i)more8% DNA than Y chromosome
- B. ii)less 2% DNA than Y chromosome
- C. iii) more 2% DNA than Y chromosome
- D. iv) more 4% DNA than Y chromosome**

190. Dolly was cloned using enucleated oocyte from

- A. i) **Scottish Black face breed**
 - B. ii) Finn Dorset breed
 - C. iii) Lohi Breed
 - D. iv) Merino Breed
191. In IVF for capacitation of sperm the following can be use
- A. Caffien
 - B. ii) hyloronidase
 - C. iii) Tripsyn
 - D. iv) **Haperin**
192. In IVEP embryo collection media should be
- A. TCM 199
 - B. PBS
 - C. **TL-HEPES**
 - D. Tris buffer
193. For culturing of embryo temperature of incubator should be maintain at
- A. 37°C
 - B. **38.5°C**
 - C. iii) 39.5°C
 - D. 40°C
194. Protein supplement required in invitro maturation should be
- A. **10%**
 - B. ii) 20%
 - C. 25%
 - D. 30%
195. Criteria for assessment of maturation of oocytes in IVF is uniform expansion of
- A. **Cumulus cells**
 - B. ii) Granulosa cells
 - C. iii) Oviductal cells
 - D. iv) Epithelial cells
196. Granulosa cells play a critical role in
- A. i) is to provide nutrients to the oocytes during its growth
 - B. ii) to participate in the zona formation
 - C. iii) **the growth and development of the oocyte**
 - D. iv) None of above
197. The energy sources used in embryo culture media are
- A. fructose
 - B. Mannose
 - C. **Pyruvate**
 - D. Sucrose
198. Was Dolly already 'old' at birth

- A. Yes
- B. No
- C. Almost
- D. maybe

199. The hormone that has the effect of keeping progesterone levels high, holding animals in an extended diestrus.

- A. LH
- B. ii)FSH
- C. iii)**progestin**
- D. iv)GnRh

200. Transgenesis could be performed by

- A. **Embryonic stem cells**
- B. Aggregation method
- C. Artificial Embryo twinning
- D. ART

201. Therapeutic cloning, also called

- A. Molecular cloning
- B. ii)DNA cloning
- C. iii)Cell cloning
- D. iv)**embryo cloning**

202. cryoprotectants which has low molecular wt.

- A. **Ethylene glycol**
- B. ii) Glycerol
- C. iii) Propylene glycol
- D. iv) DMSO

203. In Embryo transfer Pregnant mares' serum gonadotrophin (PMSG) can be used

- A. i)as a double injection of 2000-3000 IU
- B. ii) as a single injection of 1000-1500 IU
- C. iii)as a double injection of1000-1500 IU
- D. iv) **as a single injection of 2000-3000 IU**

204. Following are prostaglandin product

- A. i)Fertagyl
- B. ii)**Estrumate**
- C. iii)Ovacyst
- D. iv) None of above

205. ICSI is best in

- A. AI
- B. ii)ET

C. Azospermia

D. iv)Polyspermia

206. In flow cytometry about

- A. 60% sperm is obtain
- B. ii)**60% sperm is wasted**
- C. 70% sperm is obtain
- D. iv)90% sperm is obtain

207. Stage2 of Parturition

- A. Expulsion of membrane
- B. ii)**Birth Process**
- C. Placenta Expulsion
- D. Preparatory Stage

208. Site selected in cesarean section for delivery of dead emphysematous fetus.

- A. Left flank approach
- B. ii)Right flank approach
- C. **Midline approach**
- D. iv Upper flank approach

209. Hypertrophy of the middle uterine artery until presence of fremitus in cow occur

- A. 45-60 days
- B. ii)**85 days**
- C. iii) 105 days
- D. iv)120 days

210. CL of pregnancy is known as

- A. CL albican
- B. **CL verum**
- C. CL spurium
- D. CL haemorrhagicum

211. Uterus is attached to the pelvic and abdominal wall by

- A. Suspensory ligament
- B. Mesoovarian ligament
- C. Mesosalpinx
- D. **Broad ligament**

212. . Sperm transport from the uterus

- A. **Contractile movement of uterus**
- B. Flageller movement of sperm
- C. Fluid movement
- D. None of above

213. Ampulary isthmic junction control transport of egg and sperm plasma membrane changes in oviduct by
- A. Mechanical mean
 - B. Myometrial contraction
 - C. **Neural biochemical**
 - D. Biophysical mean
214. Transuterine migration is common in
- A. **Horse**
 - B. Cattle
 - C. Sheep
 - D. Camel
215. Ejaculated volume of semen in bull is
- A. **5-8ml**
 - B. 10-12 ml
 - C. 2-3 ml
 - D. 12-15 ml
216. Female in the birds are
- A. Homogametic
 - B. **heterogametic**
 - C. some Homogametic and some heterogametic
 - D. Syngami
217. Sertoli cell produce the hormone
- A. **Activin**
 - B. Testosterone
 - C. iii) Androgen
 - D. FSH
218. Hatching of blastocyst after ovulation occurs about
- A. i) **4-8day**
 - B. ii) 8-9 days
 - C. iii) 3-4 days
 - D. iv) 10-15 day
219. Non deciduate placenta is characteristic of
- A. Sheep
 - B. Horse
 - C. **Cattle**
 - D. All above
220. High ambient temperature

- A. Increase male libido in buffalo
- B. **decrease male libido in buffalo**
- C. No effect on libido
- D. Fluctuation on male libido in buffalo

221. Gestation length in swamp buffalo

- A. **320-340**
- B. 305-320
- C. 280-310
- D. 340-350

222. Duration of estrus in ewe is

- A. 36-48 hrs
- B. 24-48 hrs
- C. **24-36 hrs**
- D. 12-24 hrs

223. Source of progesterone in pregnant sheep is

- A. CL
- B. **Placenta**
- C. Trophoblast
- D. none of above

224. An ovulatory season in mare is divided in three phases

- A. Recessive, inactive, dormant
- B. ii) Dominating, inactive, resurgent
- C. **Recessive, inactive, resurgent**
- D. Recessive, active, resurgent

225. diestrus length in mare is

- A. 16 days
- B. 9 days
- C. 12 days
- D. **14**

226. Diameter of pelvic inlet in male is

- A. **Smaller than female**
- B. Larger than female
- C. Same as female
- D. Varies with breed in both

227. Postpartum estrus in mare occur

- A. 15-20 days after foaling
- B. ii) 20-25 days after foaling
- C. iii) 19-24 days after foaling
- D. iv) **5-15 days after foaling**

228. Anestrus is regular part of estrus cycle

- A. Rabbit
- B. ii) Camel
- C. iii) Bitch**
- D. iv) Mare

229. Atypical fertilization usually occur as a result

- A. Early fertilization of egg
- B. ii) Incomplete maturation of egg
- C. iii) Dispersion of egg
- D. iv) Aging of egg**

230. Repeat breeder cow are those which require

- A. More than 2 services
- B. ii) more than three services
- C. iii) 2 services
- D. iv) three services

231. Non specific uterine infection can be caused

- A. Psuedomonas**
- B. ii) Brucellaabortus
- C. iii) Leptospira
- D. iv) Aspergillusflavus

232. Perinatal mortality refers to

- A. Death of the offspring before or within 48-72 hrs of life at normal term**
- B. ii) Death of the offspring before 48-72 hrs of life at normal term
- C. iii) Death of the offspring after 48-72 hrs of life at normal term
- D. iv) Death of the offspring before or within 24hrs of life at normal term

233. Retention of fetal membranes is considered pathological

- A. when it is beyond 48hrs at third stage of labor
- B. ii) When it is beyond 6hrs at third stage of labor
- C. iii) When it is beyond 24hrs at third stage of labor
- D. iv) When it is beyond 12 hrs at third stage of labor**

234. Cryptorchidism is a

- A. Acquired anomaly
- B. ii) Congenital anomaly**
- C. iii) Neuroendocrine defect
- D. iv) Hormonal insufficiency

235. ECG appears in the in the blood of pregnant mare following conception as early as

- A. 60 days
- B. ii) 90days
- C. iii) 40 days**
- D. iv) 30 days

236. Dose of FSH used in embryo transfer
- A. **25-30 mg**
 - B. ii) 35-40mg
 - C. iii) 10-15 mg
 - D. iv) 40-45mg
237. Foleys Catheter is used in
- A. A.I
 - B. ii) **E.T**
 - C. iii) Microinjection
 - D. iv) IVF
238. Ovulation time in cow is
- A. 2-3 hrs after estrus
 - B. ii) 8-9 hrs after estrus
 - C. iii) **10-12 hrs after estrus**
 - D. iv) Mid estrus
239. During estrus the dominating hormone is
- A. Prolactin
 - B. ii) Progesterone
 - C. iii) **Estrogen**
 - D. iv) FSH
240. Spermatozoa is formed from
- A. **spermatid**
 - B. ii) primary spermatocytes
 - C. iii) spermatogonium
 - D. iv) tertiary spermatocytes
241. Ovogenesis is
- A. Formation of oviduct
 - B. ii) Formation of female gamete
 - C. iii) oogenesis
 - D. iv) **Both ii and iii**
242. During formation of oocytes second meiotic arrest will occur
- A. Before maturation
 - B. ii) After maturation
 - C. iii) **Before fertilization**
 - D. iv) After fertilization
243. 2 Polar bodies in oocytes are released after
- A. oogenesis

- B. ii) maturation
- C. iii) fertilization**
- D. iv) formation of embryo

244. fertilized life of ova in cattle is

- A. 8-12hrs**
- B. ii) 15-20 hrs
- C. iii) 4-8 hrs
- D. iv) 14-18 hrs

245. Fertilized life of sperm in horses is

- A. 30-48 hrs
- B. ii) 72-128 hrs**
- C. iii) 24-48 hrs
- D. iv) 130-135 hrs

246. Germ layer form by Mesoderm is

- A. Central nervous system
- B. ii) Digestive system
- C. iii) Reproductive system**
- D. iv) Skin

247. Mullerian duct will develop into

- A. Female duct system**
- B. ii) Male duct system
- C. iii) Both male and female
- D. iv) None

248. Relaxin is produce during gestation in mare by

- A. Placenta**
- B. ii) CL
- C. iii) Pituitary
- D. iv) Hypothalamus

249. First stage of parturition usually takes

- A. 6-7 hrs
- B. ii) 8-10 hrs
- C. iii) 2-6 hrs**
- D. iv) 14-24 hrs

250. In cow normal presentation at birth is

- A. Posterior
- B. ii) Anterior**
- C. iii) transverse
- D. iv) Oblique

251. Mammogenesis is
- A. Development of fetus
 - B. ii) Development of CL
 - C. iii) Development of GF
 - D. iv) Development of mammary gland
252. Concentration of spermatozoa in bull per ejaculate is
- A. **1.2 billion/ml**
 - B. ii) 2 billion/ml
 - C. iii) 3 billion/ml
 - D. iv) 0.5 billion/ml
253. Principle inorganic ion in seminal plasma is
- A. Zn and Cu
 - B. ii) Na and Cl**
 - C. iii) K and Mg
 - D. iv) Mg and Zn
254. Most critical cold shock occur to the sperm when temperature is
- A. Increase to 42°C
 - B. ii) Decrease to 25-30°C
 - C. iii) Decrease to 15-0°C**
 - D. iv) Increase to 47°C
255. CASA is used for
- A. Evaluation of embryo
 - B. ii) Embryo counting
 - C. iii) Semen extending
 - D. iv) Semen analysis**
256. Brucella organism produce a substance in the placenta known as
- A. Mannose
 - B. ii) Glycose
 - C. iii) Erythritol**
 - D. iv) Sucrose
257. Intersex is most common in
- A. Goat**
 - B. ii) Camel
 - C. iii) Horse
 - D. iv) Cow
258. Horse fetus assumes the shape of horse
- A. 45day
 - B. 67day
 - C. 37day**

D. 75 day

259. Which of the following is absent in dog

- A. **Bulbourethral**
- B. Prostrate
- C. Seminal vesicle
- D. Ampula
- E. None of these

260. Size of placentomes in mare at 5 month of pregnancy

- A. 1.5-2 cm
- B. 2.5-4 cm
- C. 4-5cm
- D. **None of these**

261. For pregnancy diagnosis in cattle progesterone concentration cannot measured in

- A. Milk
- B. Serum
- C. Blood
- D. **Urine**

262. Buhner suturing method is used

- A. Cesarean operation
- B. Rupture of uterus
- C. **Vaginal prolapse**
- D. Rupture of perineum

263. TALP media in IVF is used for

- A. Oocytes maturation
- B. **Oocytes fertilization**
- C. Embryo culture
- D. Oocyteswashing

264. Gamete intrafallopian tube transfer is usually done in

- A. Camel
- B. Sheep
- C. **Horse**
- D. Goat

265. Coculture system in IVF means

- A. Addition of protein in the media
- B. **Addition of cells in the media**
- C. Addition of hormones in the media
- D. Addition of caffeine in the media

266. % of Bovine serum albumin added to maturation media of IVF is

- A. 20%
- B. 15%
- C. 30%

D. 10%

267. First method used for sexing of semen was
- A. Hybridization method
 - B. **Barr body method**
 - C. X linked enzyme assay
 - D. interspecies method
268. Interestus interval in bitches consists of
- A. Diestrus
 - B. Proestrus
 - C. Anestrus
 - D. **None of above**
269. First cloned produce was
- A. lamb
 - B. **Tadpole**
 - C. Calf
 - D. Foal
270. Function of oxytocin is:
- A. **Helps in uterine inertia**
 - B. helps in spermatogenesis
 - C. helps in follicular growth
 - D. none of these
271. Parturition in bitch is known as:
- A. pupping
 - B. **whelping**
 - C. farrowing
 - D. none of these
272. The normal gestation period in bitch:
- A. 90 days
 - B. 120 days
 - C. **62 days**
 - D. 75 days
273. Sigmoid flexure is absent:
- A. **horse**
 - B. ox
 - C. dog
 - D. none of these
274. The interstitial endocrine cell of testis are also known as :
- A. sertoli cell
 - B. **lyeding cell**

- C. purkinje cell
- D. parietal cell

275. Testosterone is secreted by:

- A. lungs
- B. follicular cells
- C. acinus
- D. **leyding cell**

276. Diffuse placenta is present in:

- A. **horse**
- B. cattle
- C. bitch
- D. cat

277. Zonary placenta is found in:

- A. cow
- B. goat
- C. **bitch**
- D. sheep

278. Ferguson reflex incites release of:

- A. **oxytocin**
- B. relaxin
- C. estrogen
- D. progesterone

279. Os- penis is found in:

- A. camel
- B. horse
- C. bull
- D. **dog**

280. Best time of insemination in cow is:

- A. proestrus
- B. **midestrus**
- C. metestrus
- D. diestrus

281. Nymphomaniac condition is associated with:

- A. luteal cyst
- B. ovarian cyst
- C. **follicular cyst**
- D. all

282. Ejaculate volume of bull is:

- A. **5-8 ml**
- B. 12 ml

- C. 15 ml
- D. 18 ml

283. The first method of collection of semen is performed by;

- A. fistula method
- B. swab method**
- C. A.V method
- D. electric ejaculator

284. In cows and ewes ovulation follows the pre-ovulatory LH surge by about:

- A. 12-18 hours
- B. 24-30 hours**
- C. 30-36 hours
- D. 40 hours

285. In cows maternal recognition usually occur by day:

- A. 15-18**
- B. 18-22
- C. 22
- D. 25

286. FSH release is inhibited by:

- A. inhibin**
- B. adrenalin
- C. LH
- D. estrogen

287. The nature of FSH:

- A. steroid
- B. glycoprotein**
- C. fatty acids
- D. none

288. The effect of LH on ovary is which of the following:

- A. ovulation
- B. formation of cl
- C. both of a and b**
- D. none

289. Which of the following is not a function of LH:

- A. super ovulation**
- B. to hasten ovulation
- C. to increases the size of CL
- D. in treatment of nymphomania

290. In case of mummified foetus for evacuation which is used:

- A. estrogen**
- B. progesterone
- C. oxytocin

D. none

291. Besides CL progesterone is also secreted by:

- A. **placenta**
- B. pituitary
- C. thyroid
- D. all

292. luteolytic factor is found in:

- A. **Ewe**
- B. dog
- C. horse
- D. all

293. Which hormone of ovary is a protein hormone;

- A. progesterone
- B. estrogen
- C. **relaxin**
- D. all

294. Which is the duration of estrus in Mare in days:

- A. 1-2
- B. 2-4
- C. **4-7**
- D. 9

295. Which is the duration of estrus in cow..... in days:

- A. **1-2**
- B. 2-4
- C. 4-7
- D. 9

296. Met estrus is absent in which of the following:

- A. **dog**
- B. sow
- C. cow
- D. ewe

297. Pseudo pregnancy is found in which animal:

- A. dog
- B. cat
- C. **a and b**
- D. none

298. Number of caruncles found in uterus of ewe;

- A. 70-120
- B. **88-96**
- C. 40

D. 50

299. Number of caruncles found in uterus of cow;

- A. **70-120**
- B. 88-96
- C. 20-30
- D. 10-20

300. The number of graafian follicle in each ovary of the Mare is:

- A. **1-2**
- B. 1-4
- C. 4-6
- D. 8-10

301. A fluid filled cavity in graafian follicle surrounded by membrane granulosa is:

- A. **antrum**
- B. chorion
- C. allantois
- D. none

302. In Mare and sow ovary is more active:

- A. **left**
- B. right
- C. both
- D. none

303. In cow and ewe which of the following ovary is more active:

- A. left
- B. **right**
- C. both
- D. none

304. If after ovulation fertilization does not occur the CL is known as :

- A. CL sporium
- B. **CL albicans**
- C. both
- D. none

305. CL of estrous cycle is known as:

- A. **CL sporium**
- B. CL albicans
- C. both
- D. none

306. Nurse cell of testis are:

- A. interstitial cell
- B. primary germ cell
- C. **Sertoli cell**

D. none

307. The functional unit of testis is :

A. seminiferous tubules

B. rete testis

C. vas deference

D. none

308. How many days sperms remain alive in epididymis;

A. 10

B. 20

C. 60

D. 90

309. The length of bull penis is.....cm :

A. 100

B. 35

C. 55

D. 90

310. The luteal cyst is characterized by:

A. normal estrous

B. anestrous

C. both a and b

D. none

311. At which stage only cervix uterine artery can be palpated:

A. 1-2 month

B. 3-4 month

C. 5-6 month

D. after 8 month

312. Palpation of placentome should be done at what age of pregnancy:

A. 30-60 days

B. 75-80 days

C. 15-30 days

D. 90-120 days

313. Expulsion of dead fetus at completion of gestation period is known as :

A. mumification

B. still birth

C. abortion

D. none

314. Which is the following is known as Bangs disease:

A. Brucellosis

B. vibriosis

C. trichomoniasis

D. none

315. Abortion occur due to Brucella in the cows at:

- A. early pregnancy
- B. last trimester**
- C. second trimester
- D. any stage

316. In case of trichomoniasis abortion occurs.....month of gestation:

- A. 6
- B. 7
- C. 9
- D. 4**

317. potato soap like puss is seen In case of:

- A. brucella
- B. trichomonias**
- C. zbr-ipv
- D. all

318. In which condition CL persist:

- A. mummification**
- B. estrus
- C. abortion
- D. none

319. Dystocia means:

- A. difficult acceptance
- B. difficult birth**
- C. difficult breathing
- D. none

320. The range of temperature in AV for bull is..... degree celcius:

- A. 34
- B. 42-46**
- C. 50
- D. 55

321. Prostaglandin cause luteolysis in cycling cows between :

- A. 3-5 days of cycle
- B. 5-16 days of pregnancy**
- C. all of the above
- D. none

322. From which of duct of embryo the male reproductive system arises?

A. Wolfian duct

B. oviduct

C. bile duct

D. none of these

323. The first heat of pubertal animal is often silent because of lack of :

A. progesterone

B. estrogen

C. LH

D. FSH

324. Functionally, HCG is predominantly like:

A. progesterone

B. estrogen

C. LH

D. FSH

325. The process of parturition is initiated by:

A. mother

B. fetous

C. temperature of uterus

D. none of these

326. In the cow, at the time of ovulation oocyte will be at:

A. primary oocyte stage

B. secondary oocyte stage

C. tertiary oocyte stage

D. none of these

327. Presence of progesterone in maternal circulation indicates:

A) luteal activity

B) maternal activity

C) follicular activity

D) fetal activity

328. Which of the following animal is an induced ovulator:

A. buffalo

B. camel

C. cow

D. bithch

329. Which is the type of placenta in a cow:

A. diffuse

B. zonary

C. cotyledonary

D. none of these

330. Half-life of FSH is :
- A. **60 minutes**
 - B. 30 minutes
 - C. 2 hours
 - D. 11 hours
331. Contraceptive pills act by:
- A. progesterone
 - B. **LH**
 - C. prolactin
 - D. growth hormone
332. Viable period of ovum is..... hour:
- A. 24
 - B. **48**
 - C. 96
 - D. 72
333. Long day breeder is
- A. goat
 - B. ewe
 - C. **mare**
 - D. none of these
334. Which of the following is primary sex organ
- A. prostate
 - B. penis
 - C. **testis**
 - D. scrotum
335. Removal of uterus is called :
- A. castration
 - B. **hysterectomy**
 - C. prostatectomy
 - D. none of these
336. What is PH of vagina?
- A. **4.5**
 - B. 6.8
 - C. 8.5
 - D. 3.5
337. Nature of oxytocin hormone is:
- A. steroid
 - B. **polypeptide**
 - C. glycoprotein
 - D. none of these
338. TVT in dogs is transmitted by:

- A. Mating
- B. licking
- C. both**
- D. none

339. Site of fertilization in mammals is?

- A. ovary
- B. uterus
- C. vagina
- D. Fallopian tube**

340. The second stage of parturition is called as:

- A. expulsion of fetus**
- B. preparatory stage
- C. expulsion of placenta
- D. none of these

341. What is the average length of gestation in buffalodays:

- A. 280
- B. 340
- C. 310**
- D. 330

342. The seminal vesicle are absent in:

- A. dog and cat**
- B. cattle
- C. goat
- D. ewe

343. The duration of spermatogenesis in ram is..... Days?

- A. 54-63
- B. 40-49**
- C. 38-44
- D. 64-74

344. The spermatozoa get ability to move in the:

- A. The tubuli recti
- B. vassefference
- C. epididymis**
- D. none of these

345. What is the chemical nature of GNRH?

- A. polypeptide**
- B. fatty acid
- C. steroid
- D. glycoprotein

346. The recommended number of motile spermatozoa per dose of liquid semen is..... million:

- A. 10**

- B. 40
- C. 70
- D. 80

347. Which gland secretes melatonin hormone?

- A. anterior pituitary
- B. posterior pituitary
- C. pineal**
- D. thymus

348. In cattle, eCG is used for:

- A. treatment of follicular cyst
- B. B)treatment of luteal cyst
- C. multiple follicular growth**
- D. none

349. In the male LH is also known as:

- A. ICSH**
- B. STH
- C. TSH
- D. none of these

350. In which phase of estrous cycle animal is prone to infection:

- A. estrus
- B. met estrus
- C. di-estrus**
- D. none of these

351. In the cow, during natural mating semen is ejaculated in the:

- A. vagina**
- B. cervix
- C. uterus
- D. oviduct

352. The involution of uterus in cattle can be delayed due to:

- A. delivery of single calf
- B. uterine prolapse**
- C. both a and b
- D. none of these

353. Average ejaculation volume in a normal adult ram is:

- A. 0.5- 2 ml**
- B. 3-4 ml
- C. 5-10 ml
- D. 12 ml

354. In which spp. uterine torsion is a common problem?

- A. bovine**

- B. ovine
- C. canine
- D. equine

355. the most common cause of bovine fetal dystocia is?

- A. lateral deviation of head**
- B. flexion of limb
- C. transverse presentation
- D. none of these

356. The incidence of follicular cyst is associated with:

- A. high milk production**
- B. Genetic basis
- C. poor nutrition
- D. season of year

357. At which stage of pregnancy uterine torsion usually occurs:

- A. near to parturate**
- B. during second trimester
- C. during first trimester
- D. none of these

358. For controlling compylobacteriosis in a cattle herd:

- A. use bull vaccinated against compylobacteriosis
- B. use only A.I**
- C. both a and b
- D. none of these

359. Wry neck is more common condition in:

- A. Equine**
- B. bovine
- C. canine
- D. ovine

360. Inflammation of testis is called:

- A. orchitis**
- B. stomatitis
- C. salpingitis
- D. none of these

361. The current method of embryo transfer in buffalo is:

- A. trans-cervical**
- B. through laprotomy
- C. through laparoscopy
- D. none of these

362. The chromosome number in the sperm of horse is:

- A. 30
- B. 27

- C. 33
- D. 32**

363. In the artificial insemination in cattle the semen deposit in:

- A. vagina
- B. external os
- C. body of uterus**
- D. vestibule

364. The first birth of a cloned off-spring took place in a:

- A. Women
- B. sheep**
- C. goat
- D. cattle

365. The temperature of liquid nitrogen is:

- A. -196**
- B. -80
- C. -29
- D. -120

366. Electro-ejaculate is a method of choice in:

- A. healthy bull
- B. old or injured breeding bull**
- C. train bull
- D. all of these

367. The best temperature for thawing of semen is..... degree celcius:

- A. 37**
- B. 40
- C. 45
- D. 24

368. Which is the main luteotropic hormone in mammals:

- A. LH**
- B. FSH
- C. prolactin
- D. GnRH

369. A freemartin heifer is born:

- A. single
- B. as co twin male and female**
- C. as co twin female
- D. none of these

370. Which of the following animals is an induced ovulator?

- A. Buffalo
- B. Camel**
- C. Bitch

D. Cow

371. Which of the following animals is long-day breeder?

- A. Buffalo
- B. Sheep
- C. Mare**
- D. Goat

372. What is the time of ovulation in the mare?

- A. 1-2 days after the start of oestrus
- B. 1-2 days after the end of oestrus
- C. 1-2 days before the end of oestrus
- D. 1-2 days after mating

373. Which of the followings is necessary for ovulation?

- A. High blood progesterone levels
- B. Pre-ovulatory L.H.surge**
- C. Low blood oestrogen levels
- D. None of the above

374. In which of the following species annular rings are not present in the cervix?

- A. Buffalo
- B. Cow
- C. Sheep**
- D. None of the above

375. In which of the following species uterine caruncles are convex in shape?

- A. Cow**
- B. Sheep
- C. Goat
- D. None of the above

376. In which of the following species placentomes are not present?

- A. Cow
- B. Sheep
- C. Mare**
- D. None of the above

377. What is the average duration of oestrus in the bitch?
- A. 21 days
 - B. 180 days
 - C. 65 days
 - D. **9 days**
378. The innermost layer of the uterus is called as:
- A. Myometrium
 - B. Serosa
 - C. **Endometrium**
 - D. Perimetrium
379. The middle layer of placenta is called as:
- A. Amnion
 - B. Chorion
 - C. Allantois
 - D. **Name of the above**
380. The first follicle which is formed in the fetal ovary is called as:
- A. **Primordial follicle**
 - B. Primary follicle
 - C. Secondary follicle
 - D. Graafian follicle
381. Which enzyme (s) play major role in the passage of sperm through Zona Pellucida during fertilization?
- A. **Acrosine**
 - B. Zona Penetrating enzyme
 - C. Both A and B
 - D. None of the above
382. At 7-8 days after fertilization, the bovine embryo reaches the stage of:
- A. **Blastocyst**
 - B. Morula
 - C. Gastrula
 - D. None of the above
383. What is the type of placenta in a mare?

- A. **Diffuse**
- B. Zonary
- C. Discoid
- D. Cotylidonary

384. In which species the pregnancy occurs in the left uterine horn in 99% cases?

- A. Sheep
- B. Goat
- C. **Camel**
- D. Buffalo

385. The ovulation fossa is present in ovaries of:

- A. Cow
- B. **Mare**
- C. Cat
- D. Camel

386. Sperm capacitation takes place within the:

- A. Epididymis
- B. **Fallopian tubes**
- C. Vas Deferens
- D. Ampulla

387. The ovaries lie in a pouch of peritoneum known as:

- A. Ovarian ligament
- B. **Ovarian bursa**
- C. Ovarian fossa
- D. None of the above

388. In the cow during mating, the semen is ejaculated in the:

- A. Uterus
- B. Cervix
- C. Oviduct
- D. **Vagina**

389. The chorion develops from:

- A. **Trophoblast**
- B. Embryoblast
- C. Fibroblast
- D. None of the above

390. When is the involution of uterus completed in a cow?
- A. **3-6 weeks after parturition**
 - B. 4-6 months after parturition
 - C. 4-6 months before parturition
 - D. 4-6 days after parturition
391. The mucosa of oviduct is lined by:
- A. Simple cuboidal epithelium
 - B. Simple stratified epithelium
 - C. Simple squamous epithelium
 - D. **Simple columner epithelium**
392. The end of the fallopian tube which opens into the uterine horn is called as:
- A. Ampullary-isthmic junction
 - B. **Utero-tubal junction**
 - C. Utero-ovarian junction
 - D. Utero-vaginal junction
393. The half life of LH is:
- A. 1-2 hours
 - B. 1-2 days
 - C. **Less than 30 minutes**
 - D. More than 30 minutes
394. What is the unit of measurement of ultrasound wave frequency?
- A. Millimeter
 - B. Centimeter
 - C. Decimeter
 - D. **Hertz**
395. A corpus luteum attains its mazimum size during:
- A. **Di-estrus**
 - B. Pro-estrus
 - C. Estrus
 - D. Met-estrus
396. The Graafian follicle is a principle source of:
- A. Progesterone

- B. Estradiol**
- C. Relaxin
- D. Prostaglandin F_{2α}

397. The zoological name of the Sahiwal cow is:

- A. Bos indicus**
- B. Bos Taurus
- C. Bos bubalis
- D. None of the above

398. A corpus luteum of pregnancy is also known as:

- A. Corpus luteum sporum
- B. Corpus luteum verum**
- C. Corpus haemorrhagicum
- D. Corpus albican

399. What is the average gestation period in the bitch?

- A. 93 days
- B. 33 days
- C. 44 days
- D. 63 days**

400. In a pregnant cow, placentomes can be palpated per rectum as early as:

- A. 30th day of gestation
- B. 65th days of gestation**
- C. 90th day of gestation
- D. 120th days of gestation

401. The Chromosome Number (2N) in domestic horse is

- A. 64**
- B. 63
- C. 62
- D. 60

402. Ovulation without estrus is called as:

- A. Silent ovulation
- B. Sub ovulation
- C. Silent estrus**
- D. Diestrus

403. In mammals, the male sex determining chromosome is known as:
- A. X
 - B. Z
 - C. **Y**
 - D. A
404. When a cow is bred through A.I. not being in estrus, it will result in:
- A. Monozygotic pregnancy
 - B. Dizygotic pregnancy
 - C. **Non conception**
 - D. Delayed conception
405. The primary oocytes are differentiated from
- A. **Oogonia**
 - B. Sertoli cells
 - C. Myoid cells
 - D. Connective tissues
406. The science of male reproduction is called:
- A. Sexology
 - B. **Andrology**
 - C. Testology
 - D. Endocrinology
407. Ultrasound waves operate at frequencies of
- A. 11-20 MHz
 - B. **1-10 MHz**
 - C. 21-30 MHz
 - D. 50-100 MHz
408. p FSH stands for
- A. **Porcine follicle stimulating hormone**
 - B. Purified follicle stimulating hormones
 - C. Putrified follicle stimulating hormones
 - D. Partially purified follicle stimulating hormone
409. In cattle, eCG is used for
- A. Treatment of follicular cyst
 - B. Treatment of luteal cyst
 - C. Treatment of cystic corpus luteum
 - D. **Multiple follicular growth**

410. hCG in cattle clinic is used to
- A. Increase the sperm output in the bull
 - B. Treat cryptorchidism in young males**
 - C. to enhance puberty in females
 - D. None of the above
411. The three germ layers of the embryo develop from
- A. Trophoblast
 - B. Fibroblast
 - C. Embryoblast**
 - D. None of the above
412. During estrous cycle peak FSH concentration in a cow immediately precedes the peak concentration:
- A. LH**
 - B. Progesterone
 - C. Estradiol
 - D. GnRH
413. Preovulatory LH surge release in a cyclic cow requires the positive feed back effect of
- A. Progesterone
 - B. Estrogen**
 - C. Inhibin
 - D. None of the above
414. At 35 days of gestation in cattle, palpation of the following will confirm pregnancy
- A. Asymmetry of uterine horns
 - B. Fluid fluctuation in the uterus
 - C. CL on the ovary
 - D. Presence of Amniotic vesicle**
415. It is difficult to palpate the fetus rectally in cattle during
- a. 2-3 month of gestation
 - b. 1-2 month of gestation
 - c. **6-7 month of gestation**
 - d. None of the above
416. In sheep oxytocin is synthesized in
- a. hypothalamus only
 - b. hypothalamus and CL**
 - c. hypothalamus and pituitary

d. hypothalamus and uterus

417. The seminal vesicles are

- a. **Absent in dog and cat**
- b. Present in dog and cat
- c. Absent in cattle
- d. Absent in the horse

418. Important cat-ions of mammalian seminal plasma are

- a. Calcium and sodium
- b. **Sodium and potassium**
- c. Potassium and calcium
- d. calcium and magnesium

419. The chromosome number (2n) in cattle is

- a. 40
- b. 64
- c. 54
- d. **60**

420. The spermatozoa become motile in the

- a. Tubuli recti
- b. Vas efferens
- c. vas deferens
- d. **Epididymis**

421. The best time & temperature for thawing deep frozen semen is

- a. 4C for one minute
- b. 20C for 5 minutes
- c. **37C for 30 seconds**
- d. 70C for 2 minutes

422. Typical example of mono-estrus animal is

- a. **Bitch**
- b. Mare
- c. Buffalo
- d. Camel

423. Which of the following is a short day breeder?

- a. Mare

- b. Cat
- c. Goat**
- d. Camel

424. Melatonin is secreted by the

- a. Thymus gland
- b. Pituitary gland
- c. Adrenal gland
- d. Pineal gland**

425. In bovines, CL attains maximum size by

- A. 4th day of oestrus cycle
- B. 17th day of oestrus cycle
- C. 21st day of oestrus cycle
- D. 8-10th day of oestrus cycle**

426. What is the average length of gestation in the mare?

- a. 240 days
- b. 340 days**
- c. 370 days
- d. 310 days

427. Ovulation alternates between the right and the left ovary in

- a. Buffalo
- b. Camel**
- c. Cat
- d. Goat

428. The Leydig cells produce

- a. Estradiol
- b. Progesterone
- c. Cortisol
- d. Testosterone**

429. Half life of oxytocin is

- a. 6 minutes**
- b. 6 seconds
- c. 6 hours
- d. 6 days

430. The incidence of follicular cyst is associated with
- Non genetic basis
 - High milk production**
 - Poor nutrition
 - Uterine infection
431. Lugol's iodine solution is used for the treatment of
- Pyometra
 - 2nd degree endometritis
 - Cystic ovaries
 - Chronic endometritis**
432. In which species uterine torsion is a common problem?
- Bovine**
 - Ovine
 - Caprine
 - Equine
433. The most common foetal cause of bovine dystokia is
- Lateral deviation of head**
 - Flexion of limb
 - Transverse presentation
 - Posterior longitudinal presentation
434. At which stage of pregnancy torsion of uterus mostly occurs?
- During 2nd trimester
 - During 1st trimester
 - Near parturition**
 - Immediately after parturition
435. In which species the foetus is in a ventral position during gestation?
- Bovine
 - Caprine
 - Ovine
 - Equine**
436. The bulk of the testis consists of
- Interstitial cells

- b. **Seminiferous tubules**
- c. Connective tissue
- d. None of the above

437. Which of the following hormones is mainly responsible for libido in the male?

- a. Estradiol
- b. Progesterone
- c. Cortisol
- d. **Testosterone**

438. What is the duration of second stage of parturition in the mare?

- a. **15-30 minutes**
- b. 2-4 hours
- c. 4-6 hours
- d. None of the above

439. At Puberty, a female attains about

- a. 100% of its mature body weight
- b. 30% of its mature body weight
- c. 90% of its mature body weight
- d. **60% of its mature body weight**

440. Which of the following animals is not a spontaneous ovulator?

- A. Rabbit
- B. Camel
- C. Cat
- D. **Buffalo**

441. Which of the following animals is a short-day breeder?

- A. **Sheep**
- B. Camel
- C. Mare
- D. Cat

442. What is the time of ovulation in the cow?

- A. 10-14 hours after the start of oestrus
- B. **10-14 hours after the end of oestrus**
- C. 10-14 hours before the end of oestrus

D. 10-14 hours after mating

443. What is the time of ovulation in the bitch?

- A. **1-3 days after the start of oestrus**
- B. 1-3 days after the end of oestrus
- C. 1-3 days before the end of oestrus
- D. 1-3 days after mating

444. In which of the following species caruncles are present in the uterus?

- A. Buffalo
- B. Cow
- C. Sheep
- D. **All of the above**

445. In which of the following species uterine caruncles are concave in shape?

- A. Goat
- B. Sheep
- C. **Both A and B**
- D. None of the above

446. What is the average length of oestrus cycle in the cow?

- A. 31 days
- B. 42 days
- C. 17 days
- D. **None of the above**

447. What is the average duration of oestrus in the mare?

- A. 21 days
- B. 42 days
- C. 18 days
- D. **6 days**

448. The middle layer of the uterus is called:

- A. **Myometrium**
- B. Serosa
- C. Endometrium
- D. Perimetrium

449. The outermost layer of placenta is called:

- A. Amnion
- B. Chorion**
- C. Allantois
- D. None of the above

450. Which enzyme plays a major role in the passage of sperm through Cumulus cells during fertilization?

- A. Acrosine
- B. Hyaluronidase**
- C. Zona penetrating enzyme
- D. None of the above

451. The incidence of polyspermy in mammals is

- A. 1-2 per cent**
- B. 10-15 per cent
- C. 20-25 per cent
- D. 30-40 per cent

452. When does Zona hatching occur in a bovine embryo?

- A. 6-7 days after fertilization
- B. 9-11 days after fertilization**
- C. 14-16 days after fertilization
- D. 18-20 days after fertilization

453. What is the type of placenta in a cow?

- A. Diffuse
- B. Zonary
- C. Discoid
- D. Cotyledonary**

454. In which species the right uterine horn is much smaller than the left?

- A. Camel**
- B. Goat
- C. Mare
- D. Buffalo

455. The ovulation fossa is present in ovaries of:

- A. Cow
- B. Mare**
- C. Cat
- D. Camel

456. Uterine milk is secreted by:

- A. Endometrial cups
- B. Endometrial glands**
- C. Both A and B
- D. None of the above

457. In bovines, after fertilization, the zygotes/embryo stays in the fallopian tubes for:

- A. 8-10 days
- B. 8-10 hours
- C. 3-5 hours
- D. 3-5 days**

458. The funnel shaped part of the fallopian tube is known as:

- A. Isthmus
- B. Infundibulum**
- C. Ampulla
- D. Utero-tubal junction

459. What is the optimum time of insemination in a buffalo?

- A. 8-10 hours before the start of estrus
- B. 8-10 hours after the end of estrus
- C. 8-10 hours after the start of estrus**
- D. None of the above

460. Which of the following cells has diploid number of chromosomes?

- A. Sperm
- B. Ovum
- C. Primary spermatocyte**
- D. Spermatid

461. The involution of uterus can be delayed due to:

- A. Normal parturition
- B. Retention of fetal membranes
- C. Uterine prolapse

D. Both B and C

462. The end of the cervix which opens into the body of uterus is called as:

- A. External os
- B. Internal os**
- C. Uterine os
- D. None of the above

463. When will the blood estrogen level be highest in a cow?

- A. At the beginning of estrus**
- A. . B. During anestrus
- B. During di-estrus
- C. During met-estrus

464. What is the average length of gestation in a buffalo?

- A. 310 weeks
- B. 280 days
- C. 340 days
- D. 310 days**

465. In B-mode ultrasound, the image of a Graafian follicle will be?

- A. Bright
- B. Black**
- C. Grey
- D. None of the above

466. A Graafian follicle has maximum size during:

- A. Met-estrus
- B. An-estrus
- C. Estrus**
- D. Di-estrus

467. At puberty, a female attains about:

- A. 100% of its mature body weight
- B. 30% of its mature body weight
- C. 90% of its mature body weight
- D. 60% of its mature body weight**

468. A heifer cow is also known as

- A. **Nulliparus**
- B. Multiparus
- C. Polytocus
- D. None of the above

469. Endometrial cups are formed during pregnancy in:

- A. Cat
- B. Bitch
- C. Camel
- D. **Mare**

470. Fremitus is the characteristic pulsation in the:

- A. Femoral artery
- B. Ovarian artery
- C. **Middle uterine artery**
- D. Coccygeal artery

471. The innermost layer of the uterus is called as:

- A. Myometrium
- B. Serosa
- C. **Endometrium**
- D. Perimetrium

472. The innermost layer of placenta is called as:

- A. **Amnion**
- B. Chorion
- C. Allantois
- D. Name of the above

473. The chromosome number in secondary spermatocyte of sheep will be

- A. A 60
- B. B 54
- C. **C 27**
- D. D 64

474. Testes of embryonic cattle appear

- A. **Before ovaries**
- B. After ovaries
- C. Both appear simultaneously
- D. None of the above

475. The period of infancy in cattle is
- A. One month
 - B. Three months**
 - C. Six months
 - D. Three years
476. In the stallion, the Prostate gland is
- A. Wholly external**
 - B. Partially external
 - C. Absent
 - D. None of the above
477. The chief an-ion of the seminal plasma is
- A. Chloride**
 - B. Bromide
 - C. Iodide
 - D. None of the above
478. The duration of cycle of seminiferous tubules in a bull is
- A. 13.5 days**
 - B. 8.6 days
 - C. 10.3 days
 - D. 12.2 days
479. The normal osmotic pressure of seminal plasma in bull is
- A. 385 milliosmoles
 - B. 265 milliosmoles
 - C. 285 milliosmoles**
 - D. 365 milliosmoles
480. The average length of equine estrous cycle is
- A. 27 days
 - B. 18 days
 - C. 20-23 days**
 - D. 30 days
481. The best time of using LH for the delayed ovulation is
- A. Before the start of heat
 - B. During met-estrus

- C. During diestrus
- D. Just after service**

482. The ovaries lie in a pouch of peritoneum known as:

- A. Ovarian ligament
- B. Ovarian bursa**
- C. Ovarian fossa
- D. None of the above

483. In the cow during mating, the semen is ejaculated in the:

- A. Uterus
- B. Cervix
- C. Oviduct
- D. Vagina**

484. The chorion develops from:

- A. Trophoblast**
- B. Embryoblast
- C. Fibroblast
- D. None of the above

485. Best quality of bull semen may be obtained by using

- A. Electro-ejaculator
- B. Ampullary massage
- C. Artificial vagina**
- D. None of the above

486. First stage of parturition is called as

- A. Dilatation of cervix**
- B. Expulsion of foetus
- C. Expulsion of placenta
- D. None of the above

487. Orchitis is the inflammation of

- A. Ovaries
- B. Testes**
- C. Uterus
- D. Fallopian tubes

488. In sheep process of parturition is known as

- A. Calving
- B. Kidding
- C. Whelping
- D. Lambing**

489. In which phase of oestrus cycle uterus is resistant to infection?

- A. Estrus**
- B. Proestrus
- C. Met-estrus
- D. Diestrus

490. The part of broad ligament which supports fallopian tube is called as

- A. Meso-metrium
- B. Meso-ovarian
- C. Meso-salpinx**
- D. None of the above

491. Which is the basic obstetrical operation among the followings:

- A. Repulsion**
- B. Version
- C. Traction
- D. Rotation

492. In which of the following species uterine caruncles are concave in shape?

- A. Cow
- B. Sheep**
- C. Mare
- D. Camel

493. Wry-neck is a common condition of fetal head displacement in

- A. Equine**
- B. Bovine
- C. Caprine
- D. Ovine

494. Which nerve is mostly injured during traction?

- A. Obturator nerve**
- B. Sciatic nerve
- C. Pudendle nerve
- D. Coccygeal nerve

495. The interstitial cells of testis produce
- A. Estradiol
 - B. Testosterone**
 - C. Progesterone
 - D. Prolactin
496. Chemically, FSH is a
- A. Polypeptide
 - B. Glycoprotein**
 - C. Steroid
 - D. Fatty acid
497. Which of the following hormones is secreted by the placenta?
- A. Prolactin
 - B. GnRH
 - C. Testosterone
 - D. hCG**
498. Maturation of sperms occur in
- A. Epididymis**
 - B. Seminiferous tubules
 - C. Vas deferens
 - D. Seminal vesicles
499. Which of the following hormones is necessary to maintain pregnancy?
- A. Estradiol
 - B. Cortisol
 - C. LH
 - D. Progesterone**
500. Which of the followings initiates parturition process in bovines?
- A. Dam
 - B. Foetus**
 - C. Environment
 - D. Placenta
501. The duration of 2nd stage of labour in bovines is
- A. ½ - 1 hour**
 - B. 6 hours

- C. 10 hours
- D. 24 hours

502. The type of placenta in the bitch is

- A. Cotyledonary
- B. Zonary**
- C. Diffuse
- D. Discoid

503. Endometrial cups are formed during pregnancy in

- A. Buffalo
- B. Cow
- C. Goat
- D. Mare**

504. Kundi is a breed of

- A. Buffalo**
- B. Cow
- C. Sheep
- D. Goat

505. A corpus luteum of pregnancy is also known as:

- A. Corpus luteum sporium
- B. Corpus luteum verum**
- C. Corpus haemorrhagicum
- D. Corpus albican

506. What is the average gestation period in the bitch?

- A. 93 days
- B. 33 days
- C. 44 days
- D. 63 days**

507. During artificial insemination, the semen is deposited in the

- A. Cervix
- B. Body of uterus**
- C. vagina
- D. Uterine horn

508. Os penis is present in

- A. Ram

- B. Buck
- C. Bull
- D. Dog**

509. The funnel-shaped part of the fallopian tube is called as

- A. Isthmus
- B. Ampulla
- C. Infundibulum**
- D. Cornua

510. Vibriosis in a herd can best be diagnosed by?

- A. Serum agglutination test
- B. Milk ring test
- C. Vaginal mucus agglutination test**
- D. d) Rose Bengal plate test

511. Induction of estrus by premature regression of the corpus luteum can be done by using?

- A. PRID**
- B. PGF2 α**
- C. GnRH
- D. HCG

512. Under which of the following conditions animal is acyclic?

- A. Delayed ovulation
- B. Anovulation
- C. Silent heat
- D. None of the above**

513. Time of ovulation in a cow is?

- A. 12-24 hrs before the end of estrus
- B. About the last day of estrus
- C. 30-40 hrs after the end of estrus
- D. 10-15 hrs after the end of estrus**

514. Flehman's reaction is not observed in?

- A. Bull
- B. Stallion
- C. Boar**
- D. Ram

515. The condition in which fetal bones crepitate within the uterus on rectal examination

- A. Mummification
- B. Hydroallantois
- C. Maceration**

D. None of the above

516. The true bacterial venereal disease is

- A. Brucellosis
- B. Campylobacteriosis**
- C. Genital tuberculosis
- D. Leptospirosis

517. Endometrial cups secrete PMSG hormone during

- A. 20-60 days
- B. 100-180 days
- C. 14-120 days**
- D. 180-250 days

518. In bitch the abdominal palpation can be best performed for early pregnancy diagnosis during

- A. 15-20 days
- B. 28-32 days**
- C. 45-50 days
- D. 55-60 days

519. Which of the following vulval suture techniques has the least disadvantages for the retention of prepartum cervicovaginal prolapse?

- A. Caslick's operation
- B.) Matress suture
- C. Quill suture
- D. Buhner's suture**

520. Cuboni test is done to detect the presence of

- A. Progesterone
- B.) PMSG
- C. Estrogen**
- D. None of the above

521. Defective fetal deglutition is thought to be one of the causes of

- A. Hydroallantois
- B. Hydroamnios**
- C. Hydrocephalus
- D. Fetal ascitis

522. "Buller cow" is representing the

- A. Follicular cyst**
- B. Luteal cyst
- C. Cystic corpora lutea

D. Par ovarian cyst

523. Yellowish or whitish, thick, opaque uterine secretion nourishing the ovum and embryo is called

- A. Lochia
- B. Yolksac
- C. **Uterine milk**
- D. Oviductal fluid

524. Length of diestrus period of estrus cycle in bovine is

- A. 10 days
- B. **13 days**
- C. 18 days
- D. 15 days

525. Period of embryo in cattle is

- A. **13-45 days**
- B. 18-50 days
- C. 10-12 days
- D. 45-280 days

526. Frensis can be best felt earliest during pregnancy in cattle

- A. 30-40 days
- B. 40-60 days
- C. 150-170 days
- D. **90-120 days**

527. Causative organism for contagious equine metritis

- A. *Campylobacter fetus*
- B. *Trypanosoma equiperdum*
- C. Herpesvirus
- D. ***Tylorella equigenitalis***

528. Abortion storm is a characteristic sign of

- A. Vibriosis
- B. Trypanomoniasis
- C. **Brucellosis**
- D. Leptospirosis

529. The location of seminal vesicles in the bovine is

- A. On the floor of pelvis
- B. **Caudal to the bladder, around the neck of bladder**
- C. On the either side of the pelvis urethra near ischiatic arch
- D. None of the above

530. The urethral process is the penile characteristic in which of the following animals
- A. Dog
 - B. Boar
 - C. **Ram**
 - D. Cat
531. Spermatogenesis is under the control of which hormone
- A. **FSH**
 - B. LH
 - C. Testosterone
 - D. FSH, LH and Testosterone
532. Artificial Insemination in bitch was tried first time by
- A. Ivanoff
 - B. **Spallanzani**
 - C. Leewenhoek and Hamm
 - D. Heape
533. Onanism in male animal is a vice which leads to
- A. Impotency
 - B. Infertility
 - C. Sterility
 - D. **None of the above**
534. Presence of giant cells in the semen is the characteristic sign of
- A. **Testicular degeneration**
 - B. Testicular hypoplasia
 - C. Orchitis
 - D. Ectopic testis
535. Which of the following enzymes are present in the acrosome of the bovine sperm?
- A. Trypsin
 - B. Adenylate cyclase
 - C. Phospholipase C (PLC)
 - D. **Acrosin**
536. After ovulation, which of the following is most important for the rapid movement of the oocyte to the ampullar-isthmic junction of the oviduct?
- A. Fluid production by the isthmus
 - B. Ciliary beating in the ampulla
 - C. **Muscle contractions in the ampulla**
 - D. The presence of cumulus cells surrounding the oocyte at ovulation.

537. Following artificial insemination in the cow, increased retrograde flow will occur if semen is placed in which of the following locations?
- A. **Cervix**
 - B. Uterine body
 - C. Uterine horn, at the greater curvature (halfway up the uterine horn)
 - D. At the distal tip of the uterine horn
538. The concentration of sperm in the ejaculate would be highest among which of the following farm animal species?
- A. Bull
 - B. **Ram**
 - C. Boar
 - D. Stallion
539. Which of the following are examples of the maturation function in the epididymis?
- A. **The development of motility**
 - B. Concentration of sperm
 - C. Secretion of glycoproteins by principle cells
 - D. Contractions of smooth muscle
540. The ATP produced by sperm does not go towards which of the following?
- A. Motility
 - B. Substrate cycling
 - C. Maintenance of ionic gradients
 - D. **Transcription and translation**
541. If apoptosis of spermatogonia was prevented by inhibition of genes that promote apoptosis, which of the following would occur?
- A. More sperm would be produced.
 - B. **The blood testis barrier would be destroyed.**
 - C. The number of round spermatids would increase but the number of spermatozoa would decrease.
 - D. The process of spermiation would be inhibited.
542. Failure of the blood testis barrier would directly prevent
- A. Stem cell renewal.
 - B. Spermatocytogenesis.
 - C. **Meiosis**
 - D. Spermiogenesis.

543. Spherical bodies, weighing 0.45–0.9 kg, attached to the placenta of a normal calf comprising of an outer skin enclosing a mass of adipose connective tissue is known as
- A. Perosomus lumbis
 - B. Otter calf
 - C. **Amorphus globosus**
 - D. Schistosomus reflexus
544. Obturator paralysis is more common in
- A. Mare
 - B. Bitch
 - C. **Cow**
 - D. Ewe
545. The relation of the dorsum of the fetus to the quadrants of the maternal pelvis is
- A. Presentation
 - B. Posture
 - C. **Position**
 - D. None of the above
546. Sternoabdominal presentation is a
- A. Posterior longitudinal presentation
 - B. Anterior longitudinal presentation
 - C. **Transverse ventral presentation**
 - D. Transverse dorsal presentation
547. Wry neck is mostly seen in
- A. Bovine
 - B. **Equine**
 - C. Caprine
 - D. Canine
548. Recommended fetotomy procedure in perosomus lumbis is
- A. Amputation of fetal limbs
 - B. **Transverse division of fetal trunk**
 - C. Bisection of pelvis
 - D. Amputation of head and neck
549. Generally stallion attains the puberty at the age of
- A. 4 to 7 months
 - B. **12 to 24 months**
 - C. 9 to 12 months

- D. 36to42months
550. Sertolicelltumorof thetestesin dogsecretetes
- A. Testosterone
 - B. Androgen
 - C. **Estrogen**
 - D. Prolactin
551. Dystrophiaadiposogenitalisisobservedinthe
- A. **Dog**
 - B. Boar
 - C. Stallion
 - D. Ram
552. Largenumberofprimarysperm abnormalitiesare indicative of
- A. Ectopic testes
 - B. Testicularneoplasm
 - C. **Testiculardegeneration**
 - D. Testicularfibrosis
553. Smoothmuscle aroundspermaticcordto helpinthermoregulationoftestesis
- A. Tunicadartos
 - B. Pampiniformplexus
 - C. Cremestermuscle
 - D. Gubernaculum
554. Mitochondriaconcentratesclose to the axonemeandformsthe
- A. Endpiece ofthetail
 - B. Midpieceofthetail
 - C. Neckofthesperm
 - D. Annulus
555. Unnaturaltactilestimulationandejaculationisknownas
- A. **Onanism**
 - B. Pederasty
 - C. Coolidge effect
 - D. Ballingup

556. A complete series of cellular associations along a seminiferous tubule
- A. **Spermatogenic wave**
 - B. Spermiogenesis
 - C. Spermiostasis
 - D. Cycle of seminiferous epithelium
557. Terminology used for the high percent of abnormal sperms
- A. **Teratozoospermia**
 - B. Asthenozoospermia
 - C. Aspermia
 - D. Necrozoospermia
558. Inability to withdraw the penis back into the prepuce
- A. **Paraphimosis**
 - B. Phimosis
 - C. Posthitis
 - D. Preputial prolapse
559. Scent glands, source of pheromones located dorsally and medially at the horns of
- A. Ram
 - B. Bull
 - C. **Buck**
 - D. Stallion
560. Sertoli cell produces the protein hormone which suppresses the production of FSH
- A. Androgen binding protein
 - B. Luteinizing hormone
 - C. **Inhibin**
 - D. Estrogen
561. Spreading of adherent acrosomal granule over the surface of spermatid nucleus
- A. Golgi phase
 - B. Acrosomal phase
 - C. **Cap phase**
 - D. Maturation phase
562. Infertility in a bull due to inability to fertilize
- A. Penile deviation
 - B. **Testicular Hypoplasia**
 - C. Penile frenulum
 - D. Penile Neoplasm

563. The penile protrusion is followed by
A. Erection
B. Intromission
C. **Mounting**
D. Pelvic thrust
564. 6) The required number of progressive motile sperms at A.I. in cattle is
A. 50 millionse
B. **10 millions**
C. 30 millions
D. 3 millions
565. Presence of musculo membranous attachment on ventral aspect of glans penis to the preputial mucosa
A. Balanoposthitis
B. Penile tumor
C. corkscrew
D. **Penile frenulum**
566. Accentrically placed thickening of the acrosome is known as
A. Diadem defect
B. Sterilizing tail stump
C. Acrosomal cap
D. **Knobbed spermatozoa**
567. Flehman's reaction is not observed in
A. Bull
B. Stallion
C. **Boar**
D. Ram
568. Bicornual transverse presentation is more common in
A. Cows
B. **Mare**
C. Buffalo
D. Ewes
569. Both hind limbs retained in the uterus beneath the body of the posteriorly presented fetus
A. Dog sitting posture
B. Poll presentation
C. **Breech presentation**
D. Wry neck

570. Acute angulation of the vertebral column of the fetus causing dorsal approximation of its head and tail is a
- A. Perosomuselumbis
 - B. Otter calf
 - C. Amorphusglobosusd
 - D. **Schistosomusreflexus**
571. The release of which hormone is associated with the Ferguson's reflex.
- A. Estroegn
 - B. **Oxytocin**
 - C. Progesterone
 - D. Relaxin
572. Penile Transmissible Neoplasia is observed in the
- A. Ram
 - B. **Dog**
 - C. Stallion
 - D. Bull
573. Androgen Binding protein is secreted by
- A. Ley dig cells
 - B. Spermatogonia
 - C. **Sertoli cells**
 - D. Efferent ducts
574. Eversion of galeacapitis and crater shaped depressions in the nucleus
- A. Dag defect
 - B. **Diadem defect**
 - C. Corck screw defect
 - D. Abaxial defect
575. Effecting a change in the presentation is known as
- A. Rotation
 - B. **Version**
 - C. Extension
 - D. Flexion
576. Non dilation of cervix causing dystocia in ewes is known as
- A. Vertex
 - B. Foot nape
 - C. **Ring womb**
 - D. wry neck

577. Pattern assumed by the semen upon drying on a glass slide
- A. Fern pattern
 - B. **Crenellation pattern**
 - C. Cork screw pattern
 - D. Zig Zag pattern
578. Test used to know the functional integrity of sperm membrane
- A. Sperm mucus penetration test
 - B. **Hypo osmotic swelling test**
 - C. Hamster egg penetration test
 - D. High temperature viability test
579. The end of the diestrus period is due to
- A. Recruitment of the ovulatory follicular wave.
 - B. A decrease in estradiol negative feedback.
 - C. **Regression of the corpus luteum.**
 - D. An increase in estradiol levels coming from the preovulatory follicle.
580. In the mare, transition from the non-breeding to the breeding season is caused by
- A. **A decrease in melatonin.**
 - B. A decrease in the day length.
 - C. A switch from positive to negative feedback by estradiol.
 - D. The presence of progesterone coming from the corpus luteum.
581. Granulosa cells are similar to Sertoli Cells in that both
- A. **Have FSH receptors.**
 - B. Have LH receptors.
 - C. Produce testosterone.
 - D. Have very low levels of cAMP.
582. The blood testis barrier is due to
- A. The inhibition to growth of blood vessels in the seminiferous tubules.
 - B. The presence of gap junctions between Sertoli cells.

- C. **The presence of tight junctions between Sertoli cells.**
- D. The basement membrane between the Sertoli cells and the interstitial space where the Leydig cells are located.

583. Spermatogenesis duration in chicken is-----

- A. **12-13 days** b) 14-15 days c) 18 days d) 20days
- B. Methods of natural mating in birds include
- C. Pen mating b) flock mating c) stud mating
- D. **All of these**

584. K⁺ increases in following conditions-----

- A. Alkalosis
- B. **Acidosis**
- C. both
- D. None of these

585. Recommended dose of xylazine in cattle is (mg | kg)-----

- A. 0.1-0.5
- B. 0.5-1
- C. **0.05-0.1**
- D. None of these

586. Testes of birds are -----

- A. **Bean shape**
- B. lobular
- C. both
- D. None of these

587. Act of parturition in mare is

- A. Calving
- B. **Foaling**
- C. Kidding

D. Sowing

588. Type of placenta in mare-----

- A. Zonary
- B. Cotyledonary
- C. Discoid
- D. **Diffuse**

589. pH of semen is-----

- A. **6.5-7.2**
- B. 4.2-4.5
- C. Neutral
- D. 8

590. Time required for expulsion of placenta in cattle is-----

- A. 14 hrs
- B. 12 hrs
- C. **2-8 hrs**
- D. 24 hrs

591. Gestation period in mare is-----

- A. 380 days
- B. 400 days
- C. **360 days**
- D. 410 days

592. Puberty age in bulls(months)-----

- A. **6-18**
- B. 24
- C. 30
- D. 36

593. Ovulation in cattle takes place in-----

- A. Oviduct
- B. **ovary**
- C. scrotum

D. uterus

594. Estrus duration in mare is-----

A. 12 hrs

B. 3-7 days

C. 9 days

D. 18 hrs

595. Cattle and mares are-----

A. Spontaneous ovulator

B. induce ovulator

C. non spontaneous

D. All of these

596. Ovulation in mare takes place on-----

A. Ovary

B. ovulation fossa

C. oviduct

D. none of these

597. Land mark for RP in mare is-----

A. cervix

B. uterus

C. ovary

D. oviduct

598. Placentomes can be felt in cattle after-----

A. 40 days

B. 32 days

C. 55 days

D. 75 days

599. Placenta dependent animal for progesterone is-----

A. Cattle

- B. **Mare**
- C. bitch
- D. donkey

600. After 4 months size of foetus in cattle is-----

- A. Mouse
- B. rat
- C. **small cat**
- D. large cat

601. placentome is combination of -----

- A. placenta and cotyledon
- B. **caruncle and cotyledon**
- C. placenta and caruncle
- D. None of these

602. In-----ovaries are bean shaped.

- A. Bitch
- B. Cow
- C. **Mare**
- D. Sow

603. In mare-----type of placenta is seen.

- A. Discoid
- B. **Diffuse**
- C. Cotyledonary
- D. Zonary

604. PMSG is secreted by ----- in mares.

- A. **Endometrial cups**

- B. Placentome
- C. Foetus
- D. Ovaries

605. What is the time of ovulation in the mare?

- A. 1-2 days after the start of estrus
- B. 1-2 days after the end of estrus
- C. 1-2 days before the end of estrus**
- D. 1-2 days after mating

606. Fertile life of ovum & sperm in genital tract is-----&-----life in cervix

- A. 0,2hours
- B. 2-8hours ,36-48 hours**
- C. 12-24hours ,60-72 hours

607. In case of mare ,ovary present a notch called-----

- A. Ovulation groove
- B. Equinotch
- C. Infundibulum
- D. Ovulation Fossa**

608. Average ejaculated volume in a normal adult ram is-----

- A. 0.5-2 ml**

- B. 3-7 ml
- C. 5-10 ml
- D. None of the above

609. Fructose, a source of energy for spermatozoa is found primarily in secretions from the-----

- A. Testis
- B. Epididymis
- C. Prostate
- D. **Seminal vesicles**

610. In artificial insemination in cattle, the semen is deposited in-----

- A. Vagina
- B. Vestibule
- C. External os
- D. **Body of uterus**

611. The most important single technique is devised for the rapid genetic improvement of animals is-----

- A. Rectal palpation
- B. **Artificial insemination**
- C. Sperm sexing
- D. In vitro maturation

612. The best temperature for thawing of semen is-----

- A. 4 degree C for 1 minute
- B. 20 degree C for 5 minutes
- C. 37 degree C for 30 seconds**
- D. 70 degree C for 2 minutes

613. Best quality of bull semen may be collected by using-----

- A. Artificial Vagina**
- B. Electro-ejaculator
- C. Seminal/Ampullary Massage
- D. None of above method

614. Volume of semen in Stallion is-----

- A. 5-10 ml
- B. 15-20 ml
- C. 25-30 ml
- D. 60-100 ml**

615. Reduced concentration of Spermatozoa is known as-----

- A. Asthenozoospermia
- B. Teratozoospermia
- C. Azoospermia
- D. Oligozoospermia**

616. Frozen semen is stored at----- degree C by using liquid nitrogen.

- A. -79
- B. -196**
- C. -296
- D. -104
- E.

617. The total time a hen's body takes to transform a yolk into a fully developed egg and lay that egg is about-----

- A. 10 to 15 hours
- B. 5 to 10 hours
- C. 25 to 26 hours**
- D. 15 to 20 hours

618. The process of expelling the egg is termed-----

- A. Oviposition**
- B. Ovoviviposition
- C. Laying
- D. None of Above

619. The natural colour of poultry semen is-----

- A. Yellow
- B. Greyish**

C. White or Pearly White

D. Creamy

620. The cocks from ----- weeks of age are used for semen collection.

A. 22 or 24

B. 8 or 10

C. 10 or 12

D. 16 or 18

621. Chicken semen begins to lose fertilizing ability when stored-----

A. More than 24 hours

B. More than 1 hour

C. More than week

D. More than Month

622. Prolonged dystocia leads to fatigue of the uterine muscle and produce contraction or retraction rings called as

A. Bandl's ring

B. Schaafer's ring

C. Robert's ring

D. Uterine ring

623. The incidence of dystocia in posterior presentation of fetus in unipara is

A. Low

B. High

C. Absent

D. Moderate

624. Primary uterine inertia is seen most often in which species?
- A. Mare
 - B. Sow
 - C. Ewe
 - D. Bitch
625. Hydrocephalus in cattle is frequently associated with deformed
- A. Muscles
 - B. Head
 - C. Limbs
 - D. Viscera
- 626 Small litter size leads to cause larger fetuses that may predispose to dystocia in
- A. Ewe
 - B. Goat
 - C. Bitch
 - D. Sow
627. In cat dystocia may be due to postural abnormalities of head and neck and
- A. Breech presentation
 - B. Wry neck
 - C. Dog sitting posture
 - D. Hip-lock condition
628. Obstetrical hooks may be long or short but should always be
- A. Sharp
 - B. Blunt
 - C. Pointed
 - D. Straight
629. Williams, Guard's and Ames are different types
- A. Obstetrical hooks
 - B. Chain
 - C. Knives
 - D. Chisel
630. Repulsion may be accomplished by the operator's arm, the arm of an assistant or by a
- A. Fetotome

- B. Obstetrical chain
- C. Ropes
- D. Crutch repeller

631. The corneas are grey and opaque after the fetus has been dead for
- A. 12-24 hours
 - B. 24-48 hours
 - C. 6 to 12 hours
 - D. 48-72 hours
632. Version is most often done while transverse ventral presentation in
- A. Queen
 - B. Mare
 - C. Buffalo
 - D. Sow
633. Dystocia caused by the cord being wrapped around a portion or extremity of fetus
- A. Frequently occurs in domestic animals
 - B. Frequently causes dystocia
 - C. Does not occurs in domestic animals
 - D. Frequently causes fetal dead in domestic animals
634. The uterine twisting of the birth canal is often not noticeable in
- A. 90 degree torsion
 - B. 180 degree torsion
 - C. 270 degree torsion
 - D. 360 degree torsion
635. Detruncation in anterior presentation is indicated in rare instances when the fetus is in a
- A. Dog sitting posture
 - B. Nape presentation
 - C. Breech presentation
 - D. Wry neck

636. Downward deviation of the head between the forelimb is occasionally seen in all species except
- A. Mare
 - B. Ewe
 - C. Sow
 - D. Bitch
637. The turning of the fetus on its long axis to bring the fetus into dorso-sacral position is called
- A. Repulsion
 - B. Rotation
 - C. Version
 - D. Adjustment of extremities
638. Williams long cutting hook with a blunt point is very useful for cutting
- A. Ribs
 - B. Muscles
 - C. Ligaments
 - D. Joints
639. When fetal emphysema and sloughing of the hair is present the fetus has been dead for
- A. 24-48 hours
 - B. 6-12 hours
 - C. 12-24 hours
 - D. 48 hours or more
640. Cesarean section is more difficult to perform in which species in comparison to other domestic animals
- A. Sow
 - B. Bitch
 - C. Mare
 - D. Ewe
641. Fetalascities is seen as an occasional cause for dystocia in any species but occurs most often in
- A. Mare
 - B. Sow

- C. Cow
 - D. bitch
642. Perosomuselumbis if occurs in posterior presentation may be mistaken for
- A. Breech presentation
 - B. Dog sitting posture
 - C. Vertex presentation
 - D. Wry neck
643. The symptom of ketosis in cow occurs as
- A. Digestive and nervous form
 - B. Nervous and Urinary form
 - C. Genital and Nervous form
 - D. Digestive and Reproductive form
644. The condition of obturator paralysis is
- A. More prevalent in heifers than in cows
 - B. More prevalent in cows than in heifers
 - C. Commonly prevalent in both cows and heifers
 - D. Not prevalent in heifers and cows
645. Most common type of ketosis after parturition in cow is
- A. Primary spontaneous
 - B. Primary nutritional
 - C. Secondary ketosis
 - D. Secondary nutritional
646. Puerperal tetany or eclampsia in the bitch and cat is a metabolic disease characterized by
- A. Hypoglycemia
 - B. Hyperglycemia
 - C. Hypocalcemia
 - D. Hypercalcemia

647. During Parturient paresis in cow the blood serum calcium level drops from a normal of 8-12g/100 ml to
- A. 3-7g/100ml
 - B. Less than 2g/100ml
 - C. 8-10g/100 ml
 - D. Less than 1g/100 ml
648. Gluteal paralysis is rare and is described only in
- A. Mare
 - B. Cow
 - C. Sow
 - D. Ewe
649. Hematomas and contusions of the vagina or the vulva are occasionally noted in all animals but most commonly in
- a. Bitch and Queen
 - b. Sow and Bitch
 - c. Cow and Ewe
 - d. Mare and Sow
650. Severe bleeding from the uterus of large animals may be controlled by
- A. Prolactin
 - B. Oxytocin
 - C. Progesterone
 - D. Gonadotropin
651. The volume of lochia from bovine uterus during first 48 hours of parturition is about
- A. 500-800 ml
 - B. 100-500 ml
 - C. 2000-2500ml
 - D. 1400-1600 ml
652. Hysterectomy is often considered in dogs and cats with a prolonged dystocia of
- A. 6-12 hrs
 - B. 12-18 hrs

- C. 18-24 hrs
 - D. 24-36 hrs
653. In most cows the presence of very relaxed ligaments indicates that parturition will probably occur in
- A. 6 to 12 hrs
 - B. 12 to 18 hrs
 - C. 18 to 24 hrs
 - D. 24 to 48 hrs
654. The occurrence of wry neck is common in equine fetuses developing
- A. In posterior presentation
 - B. In anterior presentation
 - C. Transversely
 - D. In all presentations
655. At birth what is the approximate percentage of birth weight of foal in relation to the mature weight
- A. 4 per cent
 - B. 6 per cent
 - C. 9 per cent
 - D. Less than 2 per cent
656. Of farm animals which animal born in the most advanced stage of physiological development
- A. Foal
 - B. Calf
 - C. Piglet
 - D. Lamb
657. High feeding levels may favour dystocia, especially in heifers by excessive deposition of fat in the
- A. Abdominal region
 - B. Genitalia
 - C. Pelvic region
 - D. Uterine horn

658. Secondary uterine inertia that is seen in all species is the result of
- A. Nutritional deficiency
 - B. Fetal oversize
 - C. Exhaustion of uterine muscle
 - D. Hormonal imbalance
659. . Manual removal of the placenta is contraindicated in cows with elevated body temperature above
- A. 101 degree F
 - B. 102 degree F
 - C. 103 degree F
 - D. Not contraindicated
660. . If the placenta is not expelled in 12-24 hours an acute metritis may result and unless treated early or hysterectomy performed, it is usually fatal in
- A. 4 to 5 days
 - B. 1 to 2 days
 - C. 5 to 7 days
 - D. 1 to 2 weeks
661. Necrotic vaginitis and vulvitis is observed most often in
- A. Mare
 - B. Sow
 - C. Bitch and queens
 - D. Dairy and beef heifers
662. The symptoms of necrotic vaginitis are usually observed after how many days of parturition?
- A. 1 to 4 days
 - B. Immediately after parturition
 - C. 4 to 7 days
 - D. After 1 week

663. . Almost all severe dystocia occurs in heifers with with pelvic area of
- A. 200 to 240 sq. cm.
 - B. 250 to 270 sq. cm.
 - C. 270 to 290 sq. cm.
 - D. 290 to 320 sq. cm.
664. Clam shell forceps are used to relieve dystocia in
- A. Queen
 - B. Sow
 - C. Ewe
 - D. Bitch
665. The technique of epidural anesthesia was introduced by Benesch in
- a. 1935
 - b. 1926
 - c. 1944
 - d. 1966
666. In which animals partial embryotomy is often indicated before version is attempted in transverse ventral presentation
- A. Cow
 - B. Mare
 - C. Sow
 - D. Ewe
667. In which species abdominal contractions are so violent that if the fetus is in proper presentation, position and posture, forced extraction is seldom necessary?
- A. Feline
 - B. Swine
 - C. Equine
 - D. Bovine
668. A complication of rather diffuse bleeding occurring from the submucosal area of the uterus after incising during cesarean section occurs in
- A. Bovine
 - B. Equine

- C. Swine
- D. Feline

669. Transverse ventral presentation is most commonly observed in

- A. Mare
- B. Cow
- C. Sow
- D. Bitch

670. True fetal gigantism is seen most commonly in

- A. Cow
- B. Mare
- C. Bitch
- D. Sow

671. Schistosoma reflexus is seen in cow and occasionally in sheep, goat and pig but

- A. Rarely in other species
- B. Never in other species
- C. Frequently in other species
- D. Very common in other species

672. Camel of all six species have chromosomes

- A. 64
- B. **74**
- C. 60
- D. 54

673. Camel milk contains _____ more vitamin C than cow's milk.

- A. four times
- B. **three times**
- C. two times
- D. none of these

674. Camel milk contains protein

- A. **4.02**
- B. 5.02
- C. 3.02
- D. 6.02

675. There are approximately heads of camel in Pakistan.
- A. **1.10 million**
 - B. 2.10 million
 - C. 3 million
 - D. 5 million
676. During the period of peak sexual activity in the breeding season, the scrotal skin is usually
- A. **fine and smooth**
 - B. hard and rough
 - C. both a and b
 - D. none of these
677. During the nonbreeding season when the animal is in sexually resting period and testes decrease in size, there is increased folding of the scrotal skin and it becomes
- A. fine and rough
 - B. **thick and rough**
 - C. both a and b
 - D. none of these
678. The testes of male camel are in consistency,
- A. **Soft**
 - B. Hard
 - C. Smooth
 - D. Firm
679. The left testes of male camel is often than the right
- A. Smaller
 - B. **Larger**
 - C. Similar
 - D. None of these
680. During the breeding or rutting season (usually the cooler months of the year), the size of the testes occurs.
- A. **Increase**
 - B. Decrease
 - C. Both a and b
 - D. None of these
681. The Leydig cells located between the seminiferous tubules secrete male sex hormone
- A. estrogen
 - B. androgens
 - C. **testosterone**
 - D. progesterone

382. In the camel, the epididymis is located along the _____ border of each testis
- A. **Dorsal**
 - B. Ventral
 - C. Cranial
 - D. Caudal
683. The camel has _____ type of penis.
- A. Musculo-vascular
 - B. **fibro-elastic**
 - C. Spiral
 - D. None of these
684. The camel penis _____ in shape.
- A. elongated
 - B. spherical
 - (a) **cylindrical**
 - (b) oval
685. Penis is attached with its sheath and cannot come out until the camel is _____ years of age.
- A. **2-3**
 - B. 4-5
 - C. 1-2
 - D. 5-6
686. Which accessory sex gland is absent in the camel
- A. Bulbourethral gland
 - B. **seminal vesicles**
 - C. Ampullae
 - D. Prostate
687. In the camel, the largest and only palpable accessory sex gland.
- A. Ampullae
 - B. Bulbourethral gland
 - C. **Prostate**
 - D. None of these
688. The primary reproductive organs are the _____, which are also called as gonads.
- A. Oviducts
 - B. **Ovaries**
 - C. Uterus
 - D. Cervix
689. The ovulation fossa in the camel ovaries.
- A. **Absent**
 - B. Present
 - C. Both a and b
 - D. None of these

690. Ovulation occurs in camel, _____ after mating.
- A. 24-42 hours
 - B. 18-24 hours
 - C. 24-48 hours**
 - D. 18-36 hours
391. The corpus luteum on the ovary will be seen only in
- A. pregnant animals
 - B. after sterile mating
 - C. both a and b**
 - D. non-pregnant animals
692. The uterus of camel is of _____ type
- A. bipartite**
 - B. bicornuate
 - C. simplex
 - D. duplex
693. 99% of pregnancies are seen in the uterine horn
- A. Right
 - B. Left**
 - C. Both a and b
 - D. None of these
694. _____ ligaments are absent in the camel uterus.
- A. Dorsal inter-cornual ligament
 - B. Ventral inter-cornual ligament
 - C. Both a and b**
 - D. None of these
695. The onset of puberty generally occurs in camels when they are
- A. around four years of age**
 - B. around five years of age
 - C. around two years of age
 - D. around 1 year of age
696. In the ovary of the female camel fetus, the sex cords develop at the age of
- A. 12-14 weeks
 - B. 8-12 weeks**
 - C. 6-8 weeks
 - D. 14-16 weeks
697. In Pakistan, the breeding season of the camel has been reported to be from
- A. December to March**
 - B. September to March
 - C. November to April

D. October to March

698. The heart beat in the camelembryo can be felt ultrasonically at the age of
A. 16 days
B. 18 days
C. **22 days**
D. 28 days
699. In the camelid species, the placentahistologically is of in nature,
A. endothelio-chorial
B. hemochorial
C. **epithelio-chorial**
D. none of these
700. In the camelid species, the placenta is of in nature,
A. **Diffuse**
B. Discoid
C. Cotyledonary
D. None of these
701. The length of gestation in the camel species is days.
A. Average 415 days
B. **Average 370 days**
C. Average 350 days
D. Average 420 days
702. The embryo enter into the uterus on day _____ after ovulation
A. 5-6 days
B. 10-12 days
C. **6-7days**
D. 8-12 days
703. How many poll glands are present in camel
A. 3
B. **2**
C. 1
D. 4
704. Camel is a seasonal _____
A. **Polyestrus**
B. Monoestrus
C. Both a and b
D. None of these
705. The estrus length in camel
A. 1-2 days
B. 2-3 days
C. **3-4 days**

D. 3-5 days

706. During the rutting season of the male camel, serum testosterone level is as high as
A. 30 ng/ml
B. 40ng/ml
C. 25ng/ml
D. 50ng/ml
707. One male camel is usually sufficient to cover around _____ females during one breeding season
A. 10-20
B. 20-50
C. 10-30
D. 40-60
708. It is generally suggested that at the maximum _____ services should be allowed by one male camel during breeding season.
A. 30
B. 50
C. 10
D. 20
709. How many bulbourethral glands are present in camel.
A. 3
B. 1
C. 2
D. none of these
710. Which hormone is higher during breeding season in camels.
A. Estrogen
B. Luteinizing hormone
C. Progesterone
D. Follicular stimulating hormone
711. In bovines the oocyte is ovulated as
A. Primary oocyte
B. Secondary oocyte
C. Tertiary oocyte
D. Oogonia

712. Farrowing is the act of parturition in
- A. Bitch
 - B. Cat
 - C. Camel
 - D. **Pig**
713. In the following animals the ovulation occurs during Estrus except
- A. Cattle
 - B. Buffalo
 - C. **Both A and B**
 - D. Mare
714. Ovulation occurs from alternate ovaries in
- A. Cattle
 - B. Buffalo
 - C. Mare
 - D. **Camel**
715. Which one of the following leads to development of male reproductive system
- A. Wolffian duct
 - B. Mullerian duct
 - C. Mesonephric duct
 - D. **Both A and C**
716. Pseudopregnancy can be seen in
- A. Bitches
 - B. Cats
 - C. Does
 - D. **All**

717. Induced ovulation naturally occurs inanimals.
- a. Cat
 - b. Camel
 - c. Rabbit
 - d. **All of above**
718. Progesterone concentration during diestrus in bovines isng/ml.
- a. **6-10**
 - b. 15
 - c. 18
 - d. None of these
719. What is the chemical nature of GnRH.
- a. Fatty acid
 - b. **Polypeptide**
 - c. Steroid
 - d. Glycoprotein
720. The inhibin hormone selectively suppresses the secretion ofhormone.
- a. FSH & LH
 - b. **FSH**
 - c. LH
 - d. all of above
721. Placenta of mare is
- a. **Epitheliochorial**
 - b. Hemochorial
 - c. Synepithelialochorial
 - d. Endothelialchorial

722. Absence of sperm in the semen is called
- Anspermia
 - Oligospermia
 - Azoospermia**
 - Haemospermia
723. Average ejaculation volume in normal adult ram isml.
- 0.5-2**
 - 5
 - 7
 - 10
724. First and second water bags are respectively.
- Amniotic and allantoic sac
 - Allantoic and amniotic sac**
 - Both can be true
 - None
725. Leydig cells produce.....hormone.
- Estrogen
 - Testosterone**
 - FSH
 - All of these
726. A freemartin heifer is born due to
- Anastomosis of allantoic blood vessels
 - Common chorion
 - Both A and B**
 - None

727. Tau interferon is produced initially in bovines at day of pregnancy
- 10**
 - 12
 - 14
 - None
- 18) eCG hormone can be detected in blood during pregnancy as early as
- 32 days
 - 38 days**
 - 44 days
 - 50 days
728. In bitches pregnancy can be terminated by using
- Estradiol
 - Prostaglandins
 - Cabergoline
 - All**
729. Giraffian follicle is also known as
- Primary follicle
 - Secondary follicle
 - Tertiary follicle**
 - All of above
730. In case of mummification
- CL is present**
 - CL is absent
 - cervix is open
 - both B and C

731. in case of maceration
- a. CL is present
 - b. CL is absent
 - c. Cervix is open
 - d. **both B and C**
732. Melatonin hormone is produced by
- a. Posterior pituitary
 - b. Anterior pituitary
 - c. **Pineal**
 - d. Suprachiasmatic nucleus
733. Placental lactogen is produced by placenta of cow during.....trimester.
- a. First
 - b. Second
 - c. **Third**
 - d. All of above
734. For superovulation in bovines,hormone is used
- a. **PMSG**
 - b. HCG
 - c. GnRH
 - d. LH
735. Source of relaxin hormone is
- a. **Ovary**
 - b. Placenta
 - c. both A and B
 - d. none of these

736. Half-life of LH hormone is.....minutes.
- a. **25-30**
 - b. 30-40
 - c. 50-60
 - d. none of these
737. Aneuploidy includes
- a. Turner's syndrome
 - b. Triple-X syndrome
 - c. Klinefelter syndrome
 - d. **All**
738. In male.....hormone stimulates the growth of seminiferous tubules.
- a. **FSH**
 - b. LH
 - c. P4
 - d. E2
739.is stored in the median eminence of brain
- a. FSH
 - b. LH
 - c. P4
 - d. **GnRH**
740. Ejaculate volume in stallion is.....ml.
- a. **40-120**
 - b. 200
 - c. 5-10
 - d. None

741. Spermatogenesis includes.....divisions.
- a. Meiotic
 - b. Mitotic
 - c. both A and B**
 - d. none of these
742. How many phases are there in spermeiogenesis
- a. 1
 - b. 2
 - c. 3
 - d. 4**
743. Normal osmotic pressure of semen in cows is
- a. 285 milli osmole**
 - b. 310 milli osmole
 - c. 320 milli osmole
 - d. None
744. Superfetation means, female give birth to offspring of
- a. Two sires**
 - b. One sire
 - c. Any of the above
 - d. Noe
745. Vaginal prolapse is classified into
- a. 2 stages
 - b. 3 stages**
 - c. 4 stages
 - d. none

746. Predisposing factors of vaginal prolapse includes except
- Sloping terrain
 - Bulky food
 - hypocalcemia
 - High level of circulating progesterone**
747. In cattle oxytocin is synthesized in
- hypothalamus only
 - hypothalamus and CL**
 - Ovary
 - Uterus
748. Spontaneous respiration in newborn occurs within.....minutes of expulsion
- One**
 - Two
 - Three
 - Four
749. In the cow during natural mating , the semen is ejaculated in the
- Cervix
 - Vagina**
 - Uterus
 - Oviduct
750. Vaginal prolapse can be controlled by
- Manchieve's technique**
 - Cesarean section
 - Episiotomy
 - None of the above

751. Uterine prolapse seldom occurs
- Immediately after calving
 - Few hours after calving
 - In last trimester**
 - All of the above
752. One can reduce the size of prolapsed mass of uterus by application of
- Hypertonic solutions
 - Hypotonic solutions**
 - Isotonic solution
 - None
753. Krey's hook must be applied
- On medial canthus of live calf
 - On medial canthus of dead calf**
 - On brisket region of live calf
 - All of the above
754. A case of uterine torsion with adhesion can be resolved by
- Rotational method
 - Schepher's plank method
 - Fetotomy
 - Cesarean section**
755. Puerperal period is defined as
- Period soon after calving**
 - Period soon after first conception
 - Period after first post partum heat
 - None of the above

756. Fetotomy can be performed by
- Percutaneous method
 - Subcutaneous method
 - Both A & B**
 - None of the above
757. One of the following can increase the length of effect of epidural anaesthesia with lignocaine
- Adrenaline**
 - Vasodilators
 - Both A&B
 - None of the above
758. Vaginal prolapse can be prevented by
- Administration of progesterone
 - Truss application
 - Caslick sutures
 - All of the above**
759. One can prevent uterine prolapse after calving by
- Administration of oxytocin
 - Administration of calcium
 - Administration of progesterone
 - Both A&B**
760. Induction of parturition can be achieved by
- Non-steroidal anti-inflammatory drugs
 - Short chain fatty acids
 - Steroids and prostaglandins**
 - None of the above

761. In case of RFM, we should go for manual removal after
- 4 hours
 - 8 hours
 - 12 hours**
 - 16 hours
762. Lower threshold level of circulating blood calcium in cattle is
- 8.5 mg/dL**
 - 6.5 mg/dL
 - 5.5 mg/dL
 - None of the above
763. If the animal is suffering with both Uterine Torsion and Bloat, which condition should be resolved first
- Uterine Torsion
 - Bloat**
 - Any of the above
 - Depends on the breed of the large ruminants
764. Livability of the fetus can be determined with the presence of
- Suckling reflex
 - Pedal reflex
 - Corneal reflex
 - All of the above**
765. The growing CL shape is_____shape
- Conical
 - Crown**
 - Any of the above
 - None of the above

766. Mare ovary is
- Kidney shaped**
 - Almond shape
 - Flattened
 - Oval
767. Simplex type of Uterus is found in
- Primates**
 - Canines
 - Felines
 - All of the Above
768. Landmark of Rectal Palpation in case of Large ruminants is
- Ovary
 - Cervix**
 - Fallopian Tubes
 - Body of Uterus
769. Number of Intercornual ligaments are
- 1
 - 2**
 - 3
 - None of the above
770. Fully developed CL and GF can be observed on ovary on _____ day of cycle
- 10th**
 - 12th
 - 14th
 - None of the above

771. Symmetrical cervicitis can be seen in
- Diffused inflammation
 - Recent calving
 - Abortion
 - All of the above**
772. Appearance of Uterine horns during Estrus
- Turgid**
 - Flaccid
 - Muscular
 - Any of the above
773. In case of Mare second stage of parturition lasts for _____ without causing problem to fetus
- 30 minutes**
 - 60 minutes
 - 90 minutes
 - 120 minutes
774. Normally, the scrotal circumference of testes in mature bull is
- 26-32cm
 - 32-38cm**
 - 38-44cm
 - 44-50cm
775. Normally, how many sperms/day are being produced in case of mammals
- 1-25 billions**
 - 35000-200,000
 - 1-25 millions
 - None of the above

776. Which is the warehouse for sperm in male reproductive tract
- Seminiferous tubules
 - Caput of epididymis
 - Cauda of Epididymis**
 - All of the above
777. The method which give better results in semen collection is
- Artificial Vagina**
 - Massage
 - Electroejaculation
 - Recovery method
778. Final maturation of sperm occurs in
- Ampullae
 - Vas deference
 - Epididymis**
 - Rete testis
779. Cardinal sign of pregnancy
- Amniotic vesicle
 - Freemitus
 - Slipping membranes
 - A and C**
780. Testes can store sperms of upto
- 8 days**
 - 10 days
 - 12 days
 - 14 days

781. Parts of prostate gland include
- Pars propria
 - Pars disseminate
 - Both**
 - None of these
782. Blood in semen is termed as
- Hematospermia**
 - Azoospermia
 - Oligospermia
 - None of the above
783. Motility of sperm should not be less than _____ in breeding bull during BSE
- 90 %
 - 80 %
 - 70 %**
 - 60 %
784. Post-thaw motility of sperm is always
- High
 - Low**
 - May be high or low
 - Depends on the individual
785. Decapitated sperm means
- Sperm with two heads
 - Sperm with cytoplasmic droplet
 - Sperm with two tails
 - None of the above**

786. The Corpus luteum produces which of the following specifically in domestic animals
- Estrogen and Progesterone
 - Oxytocin and Relaxin
 - Inhibin and Activin
 - All of Above**
787. Luteal regression is caused by episodic release of PGF_{2a} from the uterus which is released at intervals of about
- 2 hours
 - 4 hours
 - 6 hours**
 - 8 hours
788. The body temperature of dairy cows in heat can be measured using
- Microvawe pedometry
 - Microwave telemetry
 - Microwave thermometry**
 - All
789. What is site of semen deposition for AI in cattle
- Body of uterus**
 - Cervix
 - Vagina
 - All of these

790. Correct passage of sperm transport from site of manufacturing to ejaculation is
- Vas Efferentia Epididymis Vas Deferens Urethra**
 - Epididymis Vas Efferentia Vas Deferens Urethra
 - Vas Deferens Vas Efferentia Epididymis Urethra
 - Urethra Vas Deferens Vas Efferentia Epididymis
791. The cervix opens anteriorly
- into the uterine body**
 - into vagina
 - into vulva
 - None of above
792. Follicles are:
- Fluid filled
 - blister like
 - Soft
 - all of the above**
793. At what temperature cryopreserved semen is stored:
- 196 C**
 - 170 C
 - 100 C
 - 196 C
794. When is functional mature CL present on ovary
- Metestrus
 - Diestrus**
 - Proestrus
 - Estrus

795. How many stages/phases of estrous cycle are in cow
- a. **4**
 - b. 3
 - c. 2
 - d. 5
796. What is the average (days) of estrous cycle in cow
- a. **21**
 - b. 24
 - c. 18
 - d. 1
797. Where does fetus grow before parturition
- a. Vagina
 - b. Ovary
 - c. **Uterus**
 - d. Vulva
798. What is average sperm concentration in one ejaculate of a bull
- a. **In billions**
 - b. In millions
 - c. In thousand
 - d. In trillions
799. In early pregnancy urine becomes more in mare
- a. **Alkaline**
 - b. Acidic
 - c. Sweetish
 - d. A and C

800. It is a syndrome manifested with no clinical abnormalities but failure of conception after three successive inseminations occur :
- Fertility
 - Repeat Breeding**
 - Fertilization Failure
 - None of above
801. What is the temperature for the thawing of frozen semen
- 37 C**
 - 50 C
 - 42 C
 - 35 C
802. Causes of maternal dystocia includes except
- Primary inertia
 - Secondary inertia
 - Premature birth
 - Fetal death**
803. Cystic ovarian disease in dairy cattle occurs most frequently during the post partum period
- 31 to 60 days**
 - 61 to 90 days
 - 91 to 120 days
 - None of above
804. Traditionally cysts have been defined as anovulatory follicular structures of diameter greater than
- 25 um
 - 25 mm**
 - 25 cm
 - 25 m

805. Cystic Ovarian Degeneration is mainly observed in
- Beef cows
 - Draught cows
 - Dairy cows**
 - All of these
806. The incidence of COD is highest in
- Multiparous cows
 - High milk yielders
 - Holstein-Friesians**
 - All of above
809. Cryopreserved semen is stored in
- Liquid Nitrogen**
 - Liquid Ice
 - Compressed iced water
 - Compressed iced Nitrogen gas
810. Majority of young cattle the oestrus associated with the first ovulation is always:
- Absent
 - Present
 - Silent**
 - None
811. Chemically GnRH is a polypeptide having amino acids :
- 10**
 - 15
 - 20
 - 25

812. A teaser bull is maintained to
- A. Keep herd moving
 - B. **Detect heat**
 - C. Protect weak animals
 - D. d) Inseminate cow
814. Mark the time of insemination of a cow in heat
- A. At the onset of heat
 - B. Mid of estrus
 - C. **Between mid to late of heat**
 - D. Between late to end of heat
815. Gestation period in case of buffalo is of
- A. 282 days
 - B. 151 days
 - C. **307 days**
 - D. 335 days
816. Castration in female is called
- A. Sterilization
 - B. teaser
 - C. vasectomization
 - D. **spaying**
817. Appox. Age of sexual maturity of buffalo bull is
- A. 15 month
 - B. 18 month
 - C. 20 month
 - D. **22 month**
818. Gestation period in case of Goat is of
- A. 307 days
 - B. 270 days
 - C. **145 days**
 - D. 60days

819. Body temperature of bull as compared to sacrotal temp is
- A. Less
 - B. **more**
 - C. same
 - D. None of these
820. A vasectomized male is called
- A. Steer
 - B. **Teaser**
 - C. Stag
 - D. Bullock
821. The earliest pregnancy diagnosis test for bovine is
- A. Rectal Examination
 - B. **Progesterone Assay**
 - C. Ultrasound
 - D. Radiology
822. The fertile life of ovulated bovine eggs is
- A. **6 to 12 hours**
 - B. 20 to 40 hours
 - C. 30 to 48 hours
 - D. 48 to 72 hours
823. Mark the ovulation time after onset of heat in buffaloes
- A. 5 hr
 - B. **7 hr**
 - C. 10 hr
 - D. 13 hr
824. In the cow, at the time of ovulation, oocyte will be at
- A. Primary oocyte stage
 - B. **Secondary oocyte stage**
 - C. ootid stage
 - D. None
825. Which of the following hormones are transported in the blood in bound form?
- A. Progesterone
 - B. Estrogen
 - C. Testosterone
 - D. **All of these**

826. Pheromones are hormone like substances that effect
- A. Other animals of the same species through olfaction**
 - B. Other animals of the same species through skin
 - C. Other animals of the other species through olfaction
 - D. None of the above
827. Rectally palpation positive sign of pregnancy in cattle at 45 days of gestation is
- A. Disparity in uterine horn size
 - B. Fluid fluctuation in uterine horns
 - C. Presence of big CL
 - D. Presence of Amniotic vesicle**
828. Functionally, Hcg is predominantly like
- A. Progesterone
 - B. L.H**
 - C. Estrogen
 - D. FSH
829. Ovulation without behavioral estrus is called as
- a. Silent ovulation
 - b. Sub ovulation**
 - c. **Silent estrus**
 - d. Diestrus
830. When a cow not in true heat is bred through A.I, it will result in
- a. Monozygotic pregnancy
 - b. Dizygotic pregnancy
 - c. Non conception**
 - d. Delayed conception
831. The primary oocytes are differentiated from
- A. Oogonia**
 - B. Sertoli cells
 - C. Myoid cells
 - D. Connective tissue
832. The zygote undergoes cell proliferation to form
- A. Cyst**
 - B. Blastomeres**
 - C. Blastocytic degeneration
 - D. antrum

833. The process of parturition is initiated by
- A. Mother
 - B. Temperature of uterus
 - C. **Fetus**
 - D. Age of the mother
834. The early pregnancy factor (EPF) has
- a) **Immunosuppressive properties**
 - b) Immunostimulating properties
 - c) Autoimmune properties
 - d) None of the above
835. Presence of progesterone in maternal circulation indicates
- a) **Luteal activity**
 - b) Maternal activity
 - c) Follicular activity
 - d) Fetal activity
836. p FSH stand for
- a) **Porcine Follicle stimulating hormone**
 - b) putrefied Follicle stimulating hormone
 - c) Purified Follicle stimulating hormone
 - d) partially purified Follicle stimulating hormone
837. Circulating concentration of which hormone is lowest at estrus in cow?
- a) Estradiol
 - b) **Progesterone**
 - c) FSH
 - d) LH
838. Which hormone cause the expression of behavioral sign of estrus in the cow
- a) **Estrogen & Progesterone**
 - b) estrogen
 - c) progesterone
 - d) FSH & LH
839. Immunization of the cyclic cow against oxytocin will lead to
- a) **Prolongation of the cycle**
 - b) Shortening of the cycle
 - c) No effect on the
 - d) None of the above

840. Sperm capacitation in the cattle mostly occurs in
- a) Vagina
 - b) cervix
 - c) Uterus
 - d) **Uterus & fallopian tube**
841. Ovulation in cattle occurs
- a) At the beginning of heat
 - b) At the mid of heat
 - c) At the end of heat
 - d) **10-14 hours after the end of heat**
842. Length of estrus cycle does not change in cattle if embryo dies
- A. **10 days after conception**
 - B. 16 days after conception
 - C. 17 days after conception
 - D. 19 days after conception
843. In generally, GnGH analogs functionally are
- a) **more potent than natural GnRH**
 - b) Less potent than natural GnRH
 - c) Equally potent than natural GnRH
 - d) None of the above
844. From which duct of embryo the male reproductive system arises?
- a) Mullerian
 - b) **Wolfian**
 - c) Oviduct
 - d) Bile duct
845. The initiation of puberty in bovine is largely a function of animals
- a) Body weight only
 - b) Age only
 - c) **Age& body weight**
 - d) Climate
846. The first heat of pubertal animal is often silent because of lack of
- a) **Progesterone**
 - b) Estrogen
 - c) LH
 - d) FSH

847. In bovine, CL attains maximum size by ____ day of cycle

- a) 5th day
- b) **9th to 10th day**
- c) 15th day
- d) 189th day

848. Which of the following animals is an induced ovulator?

- a) Buffalo
- b) **camel**
- c) Bitch
- d) cow

849. What is the time of ovulation in the mare?

- a) 1-2 days after start of estrus
- b) 1- days after the end of estrus
- c) **1-2 days before the end of the estrus**
- d) 1-2 days after matting

850. Which of the followings is necessary for ovulation?

- a) High blood progesterone level
- b) low blood estrogen level
- c) **Pre-ovulatory LH surge**
- d) None of the above

851. Which of the followings inhibits ovulation?

- a) **High blood progesterone level**
- b) Pre-ovulatory LH surge
- c) low blood estrogen level
- d) None of the above

852. What is the average duration of estrus period in the buffalo?

- a) 21 days
- b) 42 days
- c) 17 days
- d) **None of these**

853. Placentomes are formed by the fusion of

- a) **Meternal cruncles and fetal cotyledons**
- b) meternal cotyledons and fetal cruncles
- c) Both A & B
- d) None of the above

854. The first follicle formen in the fetal ovary is called as
- a) **Primordial follicle**
 - b) Primary follicle
 - c) Secondary follicle
 - d) Graafian follicle
855. When does zona hatching occur in a bovine embryo?
- a) 6-7 days after fertilization
 - b) **9-11 days after fertilization**
 - c) 14-16 days after fertilization
 - d) 18-20 days after fertilization
856. The three germ layers of the embryo develop from
- a) Trophoblast
 - b) **Embryoblast**
 - c) Both A & B
 - d) None of these
857. What is the type of placenta in cows?
- a) Diffuse
 - b) Discoid
 - c) Zonary
 - d) **Cotyledonary**
858. In which species 99% pregnancy occurs in the left uterine horn
- a) Sheep
 - b) Goat
 - c) **Camel**
 - d) Buffalo
859. What is the duration of second stage of parturition in the mare?
- A. **15-30 minutes**
 - B. 1.5 hour
 - C. 24 hours
 - D. 2-4 hours
860. The first stage parturition is called as
- a) **Dilation of cervix**
 - b) Fixation of cervix
 - c) Twisting of cervix
 - d) Dilation of uterus

861. In which phase of oestrus cycle uterus is prone to infection

- a) Pro-estrous
- b) Estrus
- c) Met-estrous
- d) **Di-estrous**

862. In the cow during natural mating, the semen is ejaculated in the

- A. Uterus
- B. Cervix
- C. Oviduct
- D. **Vagina**

863. What is the optimum time of insemination in a buffalo?

- a) 8-10 hours before the start of estrus
- b) 8-10 hours after the end of estrus
- c) **12-15 hours after the start of estrus**
- d) None of these

864. The 2nd stage of parturition is called as

- a) **Expulsion of fetus**
- b) Expulsion of placenta
- c) Expulsion of embryo
- d) Expulsion of calf

865. The involution of uterus in cattle can be delayed due to

- a) Delivery of single calf
- b) Retention of fetal membrane
- c) Uterine prolapse
- d) **Both B & C**

866. The corpus luteum is a principal source of

- a) Prostaglandin F2 alpha
- b) Estradiol
- c) Testosterone
- d) **Progesterone**

867. In the mare, foal heat occurs

- a) 21-23 days after foaling
- b) 21-23 hours after foaling
- c) **7-13 days after foaling**
- d) 7-13 hours after foaling

868. The bulk of the testis consist of

- a) Seminiferous tubules
- b) Interstitial cells
- c) **Both A & B**
- d) None of the above

869. Leyding cells produce

- a) Estrogen
- b) **Testosterone**
- c) FSH
- d) Large quantity of inhibin

870. The normal osmotic pressure of seminal plasma is

- a) 265 milliosmoles
- b) **285 milliosmoles**
- c) 385 milliosmoles
- d) None of the these

871. The spermatozoa get ability to move in the

- a) The tubuli recti
- b) Vas efferens
- c) Vas deferens
- d) **The epididymis**

872. The duration of spermatogenesis in ram is

- a) 54-63 days
- b) **64-74 days**
- c) 38-44 days
- d) **40-49 days**

873. The sac- like organelle on the anterior portion of the sperm head is known as

- a) Acrosine
- b) **Acrosome**
- c) Acrocentic
- d) Lysosome

874. Absence of sperm in the semen is called

- a) **Azospermia**
- b) Haemospermia
- c) Anspermia
- d) Anspermia

875. The seminal vesicles are

- a) **Absent in dog and cat**
- b) Present in dog and cat
- c) Absent in horse
- d) Absent in cattle

876. In the stallion the prostate gland is

- a) **Wholly external**
- b) Partially external
- c) absent
- d) None of these

877. The primary circulating androgen in animals body is

- a) Androstenidione
- b) **Testosterone**
- c) Progesterone
- d) Estradiol

878. Recommended number of motile spermatozoa per dose of liquid semen is

- a) 1 bilion
- b) **10 million**
- c) 40 million
- d) 70 million

879. Average ejaculation volume in a normal adult ram is

- a) **0.5-2ml**
- b) 3-4ml
- c) 5-10ml
- d) None of these

880. Fructose, a source of energy for the spermatozoa, is found primarily in secretions from the

- a) Testis
- b) Epididimis
- c) Prostate
- d) **Seminal vesicles**

881. From which germ layers of embryo internal reproductive organ develop

- a) Ectoderm
- b) **Mesoderm**
- c) Endoderm
- d) Trophoblast

882. Which gland secretes melatonin hormone?

- a) Anterior pituitary
- b) Posterior pituitary
- c) Thymus
- d) **Pineal**