

## QUESTION (MCQs) COLLECTION TEMPLATE

### DISCIPLINE/SUBJECT AGRICULTURE (ENTOMOLOGY)

**Topic** : **General Entomology**

**1. Insects are thought to be so very successful because of**

- a. Their small size and Reproductive potential
- b. Ecological diversity
- c. Ability to utilize many food sources
- d. All of the above

**2. For their size, insects are much stronger than man because**

- a. Their muscles are naturally stronger
- b. They can control muscle response more precisely
- c. They have giant nerve fibers
- d. Of physical properties related to their small size

**3. Insects are considered to be beneficial because they are**

- a. Effective pollinators
- b. Source of useful products and potential protein
- c. Act as biological control agents
- d. All of above

**4. The most important vectors (transmission agents) of human disease would probably be**

- a. Moths
- b. Ants
- c. Beetles
- d. Fleas

**5. The most important reason for the success of insects as a group is probably**

- a. Parthenogenetic reproduction
- b. Muscle strength to weight ratio
- c. Ability to digest unusual foods
- d. Ability to fly

**6. In grasshoppers, the sclerite on the front of the head located between the frons & the labrum is**

- a. Clypeus
- b. Maxilla
- c. Gena
- d. Vertex

**7. The modified hind wings in flies (used for balance) are called:**

- a. Elytra
- b. Halteres
- c. Hamuli
- d. Tegmina

**8. Another name for an insect walking leg is:**

- a. Ambulatory
- b. Fossorial
- c. Cursorial
- d. Saltatorial

**9. An insecticide that kills insects when they touch it is called**

- a. A contact insecticide
- b. A fumigant
- c. A stomach poison
- d. A desiccant

**10. You find something crawling on your dog that looks like a small flat brown bug; it has eight legs. It is:**

- a. An insect
- b. A flea
- c. A tick
- d. A brown bug

**11. Mosquito males locate females by using:**

- a. Scolopophorous sensillae
- b. Campaniform sensillae
- c. Tympanum
- d. Compound eyes

**12. The use of X-ray irradiated flies for pest management is an example of:**

- a. Sterile male release
- b. Neoplasia induction
- c. Mutant proliferation
- d. Environmental hazards

**13. What is the mode of action of organophosphate insecticides?**

- a. Chitin-synthesis inhibition
- b. Mixed-function oxidase inhibition
- c. Acetylcholinesterase inhibition
- d. Changing ion permeability of membranes

**14. More than 500 species of insects are currently resistant to one or more pesticides. How are insects able to resist the toxic action of pesticides?**

- a. Cross-resistance & mixed-function oxidases
- b. Physiological changes in target site
- c. Behavioral adaptations
- d. All of the above

**15. Ants are:**

- a. The largest group of social insects (ca. 9,000 described species)
- b. The only social insects in the order Hymenoptera
- c. The only group of insects to be found in the fossil record
- d. None of the above

**16. The greatest threat to biodiversity in terms of the percentage of species affected is:**

- a. Habitat degradation
- b. Disease
- c. Overexploitation
- d. Pollution

**17. Mutualisms have evolved between:**

- a. Ants and bees (particularly Africanized Honey Bees)
- b. Ants and termites (e.g., the Formosan termite that has invaded Hawaii)
- c. Ants and plant feeding insects that produce honeydew (e.g., aphids and scale insects)
- d. Ants and plants that provide rewards in the form of food (e.g., extrafloral nectar)

**18. The notion that preservation of one species (often a “charismatic” organism that acts as a “flagship species”) may aid in the preservation of many others is often called:**

- a. A “habitat saver”
- b. The “umbrella & non-target effect”
- c. the “conservation strategy”
- d. All of the above

**19. Current uses of genetically modified organisms include:**

- a. Glyphosate (Roundup) resistant plants
- b. Insect resistant plants expressing the *Bacillus thuringiensis* (Bt) endotoxin gene
- c. Enhanced microbial pesticides, e.g., baculoviruses expressing scorpion toxin genes
- d. Production of vaccines

**20. Pathogen derived resistance refers to:**

- a. Use of *Bacillus thuringiensis* endotoxin against Colorado Potato Beetle
- b. Use of genes from a virus to protect a plant from a very similar or homologous virus isolate
- c. Coat protein mediated cross protection
- d. a. and c.

**21. The highest, or most developed, form of sociality among insects is referred to as:**

- a. Subsocial
- b. Semisocial
- c. Eusocial
- d. Communal

**22. Some of the evolutionary advantages of social behavior include:**

- a. Improved resource acquisition
- b. Improved defense

c. Improved survival of offspring  
the above

d. All of

**23. Worker honey bees in a colony:**

a. Are all sterile females  
c. Are diploid  
above

b. Have the same mother  
d. All of the

**24. Honey bee caste determination:**

a. Is regulated by food  
b. Is regulated by photoperiod and temperature  
c. Is regulated by the waggle dance  
d. Is determined by pesticides in the environment

**25. Termites differ from honeybees in that they:**

a. Are haplo-diploid  
c. Are diploid and a fertile queen and king

b. Have no males  
d. All of the above

**26. Family of the *Drosicha mangiferae*:**

a. Coccidae  
c. Aphididae

b. Aleurodidae  
d. Pyralidae

**27. The two most important structural insect pests in urban situations are:**

a. Moths and butterflies  
c. Beetles and flies  
Termites and ants

b. Spiders and scorpions  
d.

**28. Family of the *Emmalocera depressella*:**

a. Chrysomelidae  
c. Anobiidae

b. Pyralidae  
d. Noctuidae

**29. Family of the *Spodoptera litura*:**

a. Chrysomelidae  
c. Anobiidae

b. Pyralidae  
d. Noctuidae

**30. Family of the *Pectinophora gossypiella*:**

a. Tenebrionidae  
c. Gelechiidae

b. Noctuidae  
d. Aphididae

**31. Approaches to biological control tactics include classical, augmentative and conservation. Classical biological control is the:**

a. Preservation of natural enemies (predators & parasitoids) that are already established in an area  
b. Importation and release of an insect pest to a new area to provide hosts for natural enemies  
c. Culture and release of natural enemies that are already established in the field, but that need a “boost” to effectively control the insect pest species  
d. Importation and release of natural enemies from the native home of an alien insect pest that has invaded a new area

**32. Family of the *Bemisia tabaci*:**

a. Apionidae  
c. Pyralidae

b. Aleurodidae  
d. Pyrrhocoridae

**33. Which one is not an example of a relative method to assess economic threshold levels for an insect pest is:**

a. Number of insects per leaf  
c. Number of insects per twig  
the above

b. Number of insects per plant  
d. All of

**34. Quarantine of an insect pest involves:**

- a. Eradication of the pest
- b. Limit the movement of the pest
- c. Cooperation of the public
- d. b. and c.

**35. The equilibrium level in an insect population:**

- a. Is the point at which insects can begin to migrate
- b. Refers to fluctuations in the population around a mean
- c. Is important in determining pest status
- d. All of the above

**36. Which chemicals do insects use to communicate messages at the following three levels, respectively: within the insect body, intra-specifically (between members of the same species), and inter-specifically (between members of different species)?**

- a. Hormone, PTTH, and tympanum, respectively.
- b. Kairomone, pheromone and hormone, respectively.
- c. Hormone, pheromone and allomone, respectively.
- d. Juvenile hormone, PTTH and luciferin, respectively

**37. The honey bee waggle dance conveys information about the location of nectar sources to other worker bees in the hive. Which of the following senses do worker bees use to interpret the dance?**

- a. Sight.
- b. Smell.
- c. Taste.
- d. Touch.

**38. What is the insect auditory sense structure that detects sound (analogous to the human ear) called?**

- a. Lek.
- b. Antenna.
- c. Kairomone.
- d. Tympanum.

**39. Insects can create vibrations that are transmitted through a substrate:**

- a. That send very specific intraspecific messages, e.g. courtship songs.
- b. And used for efficient intraspecific communication over short distances.
- c. That represent a secure means of intraspecific communication.
- d. . All of the above

**40. The honey bee worker has a “stinger” which**

- a. Is a modified ovipositor and associated with a poison gland that produces the venom.
- b. Has a barb on it which can imbed into the skin and be released by muscles to allow the bee to sting another victim.
- c. Has a barb on it which can imbed into the skin of an animal and is left behind to continue injecting venom into the victim.
- d. a. and c.

**41. Bubonic plague is:**

- a. Present in rodent populations along with its efficient louse vector in the Sierra Mountains of California.
- b. Present in bear populations along with its efficient flea vector in the Sierra Mountains of California.
- c. Present in rodent populations along with its efficient flea vector in the Sierra Mountains of California.
- d. No longer a threat because the flea vector has been eradicated with chemical insecticides in the Sierra Mountains of California.

**42. Examples of some density-independent mortality factors in insect populations are:**

- a. Predators, parasitoids, and pathogens.
- b. Predators, chemical insecticides, and intraspecific competition.
- c. Chemical insecticides, hurricanes, and temperature extremes (i.e., hot and cold)
- d. Chemical insecticides, flooding, and intraspecific competition.

**43. Which of the following responses occur when predators interact with prey populations?**

- a. A numerical response.
- b. A functional response.
- c. A lag effect.
- d. a. and b. only

**44. An example of a biological control against insects is the use of**

- a. Herbicides
- b. Wildlife refuges
- c. Pesticides
- d. Sex hormones

**45. As human consumers become less tolerant of insect damage on fruit, the economic thresholds for fruit pests are likely to:**

- a. Increase
- b. Remain the same
- c. Decrease
- d. No way to tell

**46. Which of these is NOT considered an insect growth regulator?**

- a. Synthetic pyrethroid
- b. Juvenile hormone analogue
- c. Chitin inhibitor
- d. Ecdysteroid

**47. Organophosphate and carbamate insecticides work by disrupting an insect's:**

- a. Digestive system
- b. Nervous system
- c. Respiratory system
- d. Endocrine system

**48. The sterile-male technique would probably not work well for an insect pest whose:**

- a. Population is extremely abundant.
- b. Individuals are easily mass reared.
- c. Females mate only once in their lifetime.
- d. Males are very strong fliers.

**49. Which of these is an "unbiased" sampling strategy?**

- a. Malaise trap
- b. Light trap
- c. Sticky trap
- d. None of these

**50. Breeding nursery stock for higher levels of secondary plant compounds would be an example of:**

- a. Antixenosis
- b. Xenobiosis
- c. Antibiosis
- d. Tolerance

**51. Which of these is likely to be regarded as the most "useful" biological control agent**

- a. A beetle that feeds on kudzu.
- b. A parasite of lady beetles.
- c. A predator of robber flies.
- d. A viral pathogen of lacewings.

**52. To which of these groups do insect pathogens belong?**

- a. Viruses and bacteria
- b. Protozoa and fungi
- c. Bacteria and protozoa
- d. All of these

**53. Pest outbreaks tend to occur when:**

- a. Crops are planted in monoculture.
- b. Natural enemies are imported from abroad.
- c. Farmers switch to new crops.
- d. All of these.

**54. Biological control is likely to be most effective when the predator or parasite has a:**

- a. Long life cycle
- b. Wide range of preferred hosts
- c. High reproductive rate
- d. All of these

**55. Which insect orders contain species that are important pests of domestic animals?**

- a. Siphonaptera and Coleoptera
- b. Orthoptera and Hemiptera
- c. Diptera and Phthiraptera
- d. All of these

**56. Which control strategy is likely to have the greatest impact on non-target organisms?**

- a. Chemical control
- b. Cultural control
- c. Biological control
- d. Physical/mechanical control

**57. Which insect order is most closely related to Diptera?**

- a. Hymenoptera
- b. Orthoptera
- c. Plecoptera
- d. Thysanura

**58. To which class of arthropods do lobsters and shrimp belong?**

- a. Crustacea
- b. Arachnida
- c. Myriapoda
- d. Xiphosura

**59. The order Hemiptera contains:**

- a. Bed bugs and stink bugs
- b. Chewing and sucking lice
- c. Roaches and mantids
- d. Crickets and grasshoppers

**60. Which order is not holometabolous?**

- a. Siphonaptera
- b. Hymenoptera
- c. Thysanoptera
- d. Neuroptera

**61. Which order is exclusively herbivorous?**

- a. Trichoptera
- b. Odonata
- c. Phasmatodea
- d. Thysanoptera

**62. Which order is exclusively parasitic? a.**

- a. Diplura
- b. Phthiraptera
- c. Zoraptera
- d. Diptera

**63. Sucking mouthparts are NOT found in:**

- a. Fleas
- b. Lice
- c. Flies
- d. Ants

**64. All ametabolous insects are:**

- a. Predatory
- b. Wingless
- c. Endognathous
- d. All of these

**65. Immatures of the Neuroptera would be classified as:**

- a. Scavengers
- b. Parasites
- c. Herbivores
- d. Predators

**66. What do the orders Mantodea, Dermaptera, and Isoptera have in common?**

- a. Winglessness
- b. Chewing mouthparts
- c. Herbivory
- d. All of these

**67. Which insect order is most closely related to Dermaptera?**

- a. Hymenoptera
- b. Orthoptera
- c. Plecoptera
- d. Thysanura

**68. Which arthropods have chelicerae?**

- a. Spiders
- b. Millipedes
- c. Shrimp
- d. All of these

**69. The order Orthoptera contains:**

- a. Bed bugs and stink bugs
- b. Chewing and sucking lice
- c. Roaches and mantids
- d. Crickets and grasshoppers

**70. Which characteristic would not be found in the Onychophora?**

- a. One pair of antennae
- b. Three tagmata
- c. Jointed legs with claws
- d. Segmented body

**71. Which order is exclusively hematophagous (blood feeders)?**

- a. Siphonaptera
- b. Thysanoptera
- c. Phasmida
- d. Hymenoptera

**72. Which structure is always associated with the Hymenoptera?**

- a. Furcula
- b. Hamuli
- c. Collophore
- d. Elytra

**73. Chewing mouthparts never occur in:**

- a. Fleas
- b. Earwigs
- c. Beetles
- d. Bees

**74. All neopterous insects are:**

- a. Predatory
- b. Wingless
- c. Ectognathous
- d. Hemimetabolous

**75. Which developmental stage is found only in the Ephemeroptera?**

- a. Prepupa
- b. Naiad
- c. Subimago
- d. Imago

**76. Which orders are most important in the transmission of human disease?**

- a. Phasmatodea and Odonata
- b. Hymenoptera and Siphonaptera
- c. Diptera and Phthiraptera
- d. Hemiptera and Thysanoptera

**77. A naiad is best described as a(n):**

- a. Predatory larva
- b. Wingless adult
- c. Aquatic nymph
- d. Scavenger

**78. Which order is most closely related to Dermaptera?**

- a. Isoptera
- b. Mecoptera
- c. Psocoptera
- d. Coleoptera

**79. Chelicerate arthropods include:**

- a. Millipedes and centipedes
- b. Lobsters and shrimp
- c. Spiders and ticks
- d. Lice and fleas

**80. Which statement is true for all crustacea?**

- a. They live on land
- b. They have chewing mouthparts
- c. They have six walking legs
- d. They are paleopterous

**81. Which insect order is never associated with plants?**

- a. Hymenoptera
- b. Thysanoptera
- c. Hemiptera
- d. Siphonaptera

**82. Human disease pathogens are transmitted by which order?**

- a. Hymenoptera
- b. Thysanoptera
- c. Diptera
- d. All of these

**83. Odonata and Plecoptera are similar because both have:**

- a. Aquatic nymphs
- b. Endopterygote development
- c. Paleopterous wings
- d. All of these

**84. Which insect order never lives in aquatic environments?**

- a. Trichoptera
- b. Plecoptera
- c. Diptera
- d. Orthoptera

**85. Hemiptera and Hymenoptera are similar because both have:**

- a. Holometabolous development
- b. Piercing-sucking mouthparts
- c. Neopterous wings
- d. All of these

**86. Which insect order is most commonly found in soil litter?**

- a. Collembola
- b. Neuroptera
- c. Lepidoptera
- d. Phasmatodea

**87. In a male insect, which structure would lie below (ventral to) the anus?**

- a. Epiproct
- b. Aedeagus
- c. Paraproct
- d. Furca

**88. Which compound would be found in the exocuticle but NOT in the endocuticle?**

- a. Chitin
- b. Protein
- c. Quinone
- d. Wax

**89. To which body segment are the elytra attached?**

- a. Mesothorax
- b. Prothorax
- c. First abdominal
- d. Metathorax

**90. The shell of an insect's egg is called the:**

- a. Serosa
- b. Chorion
- c. Amnion
- d. Periplasm

**91. Damage symptoms of the *Emmalocera depressella*?**

- a. Bunchy top
- b. Dead hearts pulled easily
- c. Spiral glasseries
- d. Dead hearts cannot pulled easily

**92. Which structure is unicellular?**

- a. Spine
- b. Gland
- c. Seta
- d. Pile

- 93. What is the function of the micropyle in an insect's egg?**  
a. Water balance  
b. Respiration  
c. Nutrition  
d. Sperm entrance
- 94. Which mouthparts lie between the labrum and the maxillae?**  
a. Hypopharynx  
b. Labium  
c. Mandibles  
d. Palps
- 95. A line of weakness between adjacent sclerites that breaks during molting is called a**  
a. Apodeme  
b. Ecdysial suture  
c. Apophysis  
d. Epistomal suture
- 96. Chitin is most abundant in which part of the exoskeleton?**  
a. Epicuticle  
b. Cuticulin layer  
c. Procuticle  
d. Epidermis
- 97. All displacements, rotations and revolutions of the embryo within the egg of insects is called?**  
a) Gastrulation  
b) Morula  
c) Blastokinesis  
d) Eclosion
- 98. What type of chemical monomer forms the backbone of a chitin molecule?**  
a. Lipid  
b. Sugar  
c. Quinone  
d. Amino Acid
- 99. The pupae in insects which have articulated mandibles are termed as**  
a. Decticous  
b. Obtect  
c. Adepticous  
d. Protodecticous
- 100. Which structure lies between the buccal cavity and the salivarium?**  
a. Labium  
b. Cibarium  
c. Labrum  
d. Hypopharynx
- 101. Which structure(s) would be found on an insect's pretarsus?**  
a. Trochanter  
b. Furca  
c. Empodium  
d. All of these
- 102. Indirect flight muscles cause wing movement by:**  
a. Moving thoracic sclerites  
b. Pulling on axillary sclerites  
c. Exerting hydrostatic pressure  
d. All of these
- 103. What is the maximum number of ocelli that may be found in an adult insect?**  
a. Zero  
b. Five  
c. Three  
d. Twenty
- 104. A type of parasitism where the host is attacked by two or more species of parasitoids is termed as**  
a. Multiple parasitism  
b. Superparasitism  
c. Hyperparasitism  
d. Adelphoparasitism
- 105. Which sclerite lies below (ventral to) the frons?**  
a. Gena  
b. Occiput  
c. Clypeus  
d. Labium
- 106. A tormogen cell is always associated with a(n):**  
a. Spine  
b. Apodeme  
c. Gland  
d. Seta
- 107. Chitin is a very important part of the insect's exoskeleton because:**  
a. It is impermeable to water.  
b. It is rigid and inflexible.  
c. It is not digested by common enzymes.  
d. It is flexible and elastic.

**108. Sub-imaginal moulting is present in**

- a. Stonefly
- b. Caddisfly
- c. Mayfly
- d. Lanternfly

**109. Where is the genital opening found on a typical insect?**

- a. Just above the epiproct.
- b. Just below the anus.
- c. Between the paraprocts.
- d. Inside the tentorium.

**110. Parapsidal furrows are grooves found on the mesonotum of some parasitic wasps.**

**These grooves would be located:**

- a. Above and between the front wings.
- b. Under the halteres.
- c. On the epimeron.
- d. No way to tell.

**111. Which part of the exoskeleton lies between the wax layer and the cement layer?**

- a. Exocuticle
- b. Cuticulin layer
- c. Endocuticle
- d. None of these

**112. Which suture is not found on the head capsule?**

- a. Pleural suture
- b. Subgenal suture
- c. Epistomal suture
- d. Frontal suture

**113. Which statement about valvulae is incorrect?**

- a. They are part of the female genitalia.
- b. They lie just inside the valvifers.
- c. They are arranged in three pairs.
- d. They guide the egg during oviposition.

**114. The cibarium is best described as:**

- a. Thoracic muscles that move the wings.
- b. A structure on the pretarsus.
- c. The innermost layer of the epicuticle.
- d. A muscular pump that sucks food into the mouth.

**115. Elastic regions of the exoskeleton:**

- a. Are generally known as sclerites.
- b. Are found only at the joints.
- c. Lack a well-defined exocuticle.
- d. Contain high concentrations of quinones.

**116. Which layer(s) of the exoskeleton is (are) secreted by the epidermis?**

- a. Endocuticle
- b. Epicuticle
- c. Exocuticle
- d. All of these

**117. Which structure is not part of the central nervous system?**

- a. Frontal ganglion
- b. Circumesophageal commissure
- c. Tritocerebrum
- d. Subesophageal ganglion

**118. An insect must use both of its compound eyes (simultaneously) in order to perceive:**

- a. Distance or depth
- b. Ultraviolet light
- c. Shape or size
- d. Polarized light

**119. The chemical trail produced by foraging ants would be classified as a(n):**

- a. Kairomone
- b. Allomone
- c. Pheromone
- d. None of these

**120. Which statement about the insect's nervous system is incorrect?**

- a. The ventral nerve cord controls the heart and gut.
- b. The caudal ganglion controls the external genitalia.
- c. The brain controls the eyes and antennae.
- d. The subesophageal ganglion controls the mouthparts.

**121. The deutocerebrum innervates the:**

- a. Mouthparts
- b. Antennae
- c. Compound eyes
- d. Heart

**122. An ommatidium is best defined as a:**

- a. Subdivision of the ventral nerve cord.
- b. Functional unit of the compound eye.

c. Mechanoreceptor used for proprioception. d. Ventral lobe of the insect's brain.

**123. Fly larvae (maggots) move away from a bright source of light. This is an example of a**

- a. Taxis
- b. Reflex
- c. Kinesis
- d. Transverse orientation

**124. In insects, myosin and actin are proteins of**

- a. Nervous system
- b. Muscular system
- c. Male Reproductive system
- d. Female reproductive system

**125. The circumesophageal connective joins the:**

- a. Deutocerebrum with the tritocerebrum.
- b. Tritocerebrum with the subesophageal ganglion.
- c. Two lobes of the tritocerebrum.
- d. Frontal ganglion with the hypocerebral ganglion.

**126. Compared to most learned behaviors, instinctive (innate) behavior is:**

- a. More stereotyped
- b. Less complex
- c. Not subject to evolutionary change
- d. All of these

**127. When laying eggs, a female insect returns to her larval host plant, even though she has not fed upon this plant during her adult life. This is an example of:**

- a. Conditioning
- b. Habituation
- c. Imprinting
- d. Instrumental learning

**128. In most insects, the sense of smell is localized in the:**

- a. Tarsi
- b. Antennae
- c. Maxillary palps
- d. Frons

**129. In insects with dichromatic (2 pigment) color vision, maximum color discrimination is in the range from:**

- a. Red to green
- b. UV to green
- c. Yellow to blue
- d. Bee violet to bee purple

**130. The mandibular gland substance of the queen honey bee inhibits ovarian development among worker bees in the same hive. This is an example of a(n):**

- a. Allomone
- b. Synomone
- c. Pheromone
- d. Kairomone

**131. If a nerve impulse started in the tritocerebrum and passed through the stomodeal nervous system until it reached the heart, it would not pass through the:**

- a. Recurrent nerve
- b. Subesophageal ganglion
- c. Frontal nerve
- d. Hypocerebral ganglion

**132. An insect's mechanoreceptors would NOT be sensitive to:**

- a. Body movement
- b. Sound vibrations
- c. Wind speed
- d. Water vapor

**133. Stridulation is a method of producing sound by:**

- a. Vibrating the wings.
- b. Vibrating a resonant membrane.
- c. Striking the substrate.
- d. Rubbing body parts together.

**134. In an ant nest, all workers are:**

- a. Adult males
- b. Immature males
- c. Adult females
- d. Immature females

**135. Which pair of structures have the most similar sensory functions?**

- a. Chordotonal organs and tympana
- b. Stemmata and pressure receptors
- c. Flex receptors and cerci
- d. Antennae and hair beds

**136. A firefly would most likely be classified as a \_\_\_\_\_ insect.**

- a. Crepuscular
- c. Diurnal

- b. Eusocial
- d. Solitary

**137. Female pseudergates may molt into determinant nymphs whenever:**

- a. Soldier pheromone is too high
- b. Queen substance is too high
- c. King substance is too high
- d. None of these

**138. All insects must communicate in order to:**

- a. Find a mate
- b. Survive the winter
- c. Locate food
- d. Avoid predation

**139. Any chemical used to repel predators would always be classified as a(n):**

- a. Pheromone
- b. Hormone
- c. Kairomone
- d. Allomone

**140. Insects that share a common nest site but do not care for their young are said to be**

- a. Quasisocial
- b. Semisocial
- c. Communal
- d. Solitary

**141. In insects, a term "Sectorials" is associated with:**

- a. Wings
- b. Legs
- c. Antenna
- d. Mouthparts

**142. Which event might initiate nocturnal behavior in an insect whose activity cycle is under exogenous control?**

- a. Sunrise
- b. Solar eclipse
- c. Rainfall
- d. None of these

**143. Which communication signal has low information content, but can be long-lasting in the environment?**

- a. Wing color patterns
- b. Light flashes
- c. Stridulation
- d. Marking pheromones

**144. The main excretory product found in insect is:**

- a. Allantoin
- b. Uric acid
- c. Ammonia
- d. Urea

**145. If the acute dermal LD-50 of an insect is 50 mg/kg, then:**

- a. 50 insects can be killed with 50 mg of the product.
- b. One insect can be killed with 50 mg of the product.
- c. 50% of the insects can be killed with 50 mg of the product.
- d. None of these

**146. Anaphylactic shock is best described as an extreme type of:**

- a. Entomophobia
- b. Allergic reaction
- c. Parasitosis
- d. Envenomization

**147. *Vibrio cholerae*, the causal agent of cholera, can be carried from one place to another on the feet of flies. This is an example of which type of transmission?**

- a. Obligatory
- b. Mechanical
- c. Transovarial
- d. Facultative

**148. Compared to first generation pesticides, the newer second and third generation compounds are:**

- a. More selective and less persistent.
- b. More toxic and less selective.
- c. More persistent and less selective.
- d. None of these.

**149. What is the generally accepted mode of action for organophosphate insecticides?**

- a. Chitin inhibitor
- b. Cholinesterase inhibitor
- c. Stomach poison
- d. Respiratory toxin

- 150. Which of these denotes a type of host plant resistance characterized by the ability of the plant to outgrow and/or repair damage resulting from an insect attack?**
- a. Antibiosi  
c. Antixenosis
- b. Symbiosis  
d. Tolerance
- 151. Which of these is a cultural method for controlling insects?**
- a. Crop rotation  
c. Quarantine
- b. Window screens  
d. Sex pheromone traps
- 152. Which class of chemical insecticides is characterized by a relatively high degree of environmental persistence?**
- a. Carbamates  
c. Organophosphates
- b. Synthetic pyrethroids  
d. Chlorinated hydrocarbons
- 153. Which sampling strategy is best suited for insects that live in the soil?**
- a. Sex pheromone trap  
c. Berlese funnel
- b. Sweeping  
d. Light trap
- 154. Which common name is incorrectly written?**
- a. Horsefly  
c. Ground beetle
- b. Honey bee  
d. Lightningbug
- 155. As human consumers become less tolerant of insect damage on fruit, the economic thresholds for fruit pests are likely to:**
- a. Increase  
c. Decrease
- b. Remain the same  
d. No way to tell
- 156. Displacement of insects within or close to the breeding habitat is called**
- a. Migration  
c. Trivial Movement
- b. Dispersal  
d. Immigration
- 157. Organophosphate and carbamate insecticides work by disrupting an insect's:**
- a. Digestive system  
c. Respiratory system
- b. Nervous system  
d. Endocrine system
- 158. Gnats are example of:**
- a. Dipterans  
c. Coleopterans
- b. Hymenopterans  
d. Homopterans
- 159. The members of Thysanoptera have type of mouthparts:**
- a. Chewing-lapping  
c. Cutting-sponging
- b. Rasping-sucking  
d. Piercing-sucking
- 160. Polleniferous apparatus is present in honey bee on:**
- a. Abdominal tip  
c. Metaleg
- b. Proleg  
d. Antenna
- 161. Differentiation of insects' body into distinct functional regions is called:**
- a. Tagmosis  
c. Merogenesis
- b. Segmentation  
d. None of these
- 162. Spotted lanternfly is also called?**
- a. Cicada  
c. Plant-hoppers
- b. Firefly  
d. Sugarcane Pyrilla
- 163. Compound eyes are present on a stalk in:**
- a. Mayfly.  
c. Both Mayfly and Blowfly.
- b. Blowfly.  
d. None of these
- 164. Saliva of \_\_\_\_\_ species of insects does not have enzymes.**
- a. Blood-sucking  
b. Phytophagous

- c. Predacious  
d. None of these

**165. Fermentation-Pouch is a structural modification in the \_\_\_\_ of wood-eating insects.**

- a. Proventriculus  
b. Ventriculus  
c. Mesenteron  
d. None of these

**166. Which control strategy is likely to have the greatest impact on non-target organisms? control?**

- a. Chemical control  
b. Cultural control  
c. Biological control  
d. Physical/mechanical control

**167. The pedicel is the name for the:**

- a. 1st leg segment  
b. 1st antennal segment  
c. 2nd leg segment  
d. 2nd antennal segment

**168. Which hormone would NOT be found in adult insects?**

- a. Brain hormone (PTTH)  
b. Juvenile hormone  
c. Eclosion hormone  
d. All of these

**169. Aquatic immatures of all holometabolous insects are known as:**

- a. Nymphs  
b. Larvae  
c. Naiads  
d. Young

**170. Suppose you find an interesting arthropod living on the bottom of a fresh water pond. It has eyes, antennae, mandibles, and 10 pairs of legs. You conclude that this organism belongs in the class:**

- a. Insecta  
b. Crustacea  
c. Diplopoda  
d. Arachnida

**171. "Lumpers" sometimes include Blattodea and Phasmida as suborders of:**

- a. Hemiptera  
b. Orthoptera  
c. Phthiraptera  
d. Neuroptera

**172. Chewing mouthparts are not found in:**

- a. Thrips  
b. Crayfish  
c. Millipedes  
d. Bees

**173. Which one of the following orders is exclusively herbivorous?**

- a. Hemiptera  
b. Odonata  
c. Phasmida  
d. Thysanoptera

**174. In insect development, the germ band:**

- a. Forms the amnionic membrane.  
b. Differentiates into three germ layers.  
c. Gives rise to the cleavage and activation centers.  
d. Remains undifferentiated throughout the larval stages.

**175. Which part of a molt does not occur during apolysis?**

- a. Formation of new epicuticle  
b. Resorption of old endocuticle  
c. Formation of new quinone crosslinkages.  
d. Activation of molting fluid

**176. In larval insects, which hormone inhibits the development of imaginal discs?**

- a. Juvenile hormone  
b. Eclosion hormone  
c. Brain hormone  
d. Ecdysteroids

**177. In a normally developing insect, a high titer of juvenile hormone should not be found:**

- a. While it is molting from first to second instar  
b. Before it becomes a pupa.  
c. When it is a sexually mature adult.  
d. In an adult male.

**178. Width of the area treated in one pass by a sprayer or applicator is called**

- a. Coverage  
b. Drift

c. Swath

d. Delivery rate

**179. In an insect egg, the embryo begins to develop as soon as:**

- a. Cells reach the oosome.
- b. The zygote nucleus starts to divide.
- c. Hormones are secreted by the activation center.
- d. Yolk contracts from one side of the egg.

**180. Which order would a "lumper" NOT include in the Orthoptera?**

- a. Mantodea
- b. Grylloblattodea
- c. Phasmida
- d. Isoptera

**181. Which of these characteristics do insects and crustaceans have in common?**

- a. Mandibulate mouthparts
- b. Jointed legs
- c. Open circulatory system
- d. All of these

**182. In an insect pupa:**

- a. The insect is surrounded by a silken cocoon.
- b. The larval exoskeleton becomes a puparium.
- c. The insect's body forms a chrysalis.
- d. All of these.

**183. Which structures would be found in an eruciform larva, but not in a scarabaeiform larva?**

- A. Prolegs
- b. Compound eyes
- c. Mandibles
- d. All of these

**184. Which order is most closely related (phylogenetically) to the Neuroptera?**

- a. Mecoptera
- b. Phthiraptera
- c. Blattodea
- d. Odonata

**185. Which class is most closely related (phylogenetically) to the Insecta?**

- a. Xiphosura
- b. Myriapoda
- c. Crustacea
- d. Arachnida

**186. Which group of insects has simple metamorphosis?**

- a. Fleas
- b. Beetles
- c. Flies
- d. Bugs

**187. Insect blood does not:**

- a. Clot
- b. Flow through the wings
- c. Contain antibodies
- d. Transport hormones

**188. In insects, the first pair of post-oral appendages are called mandibles. What are these appendages called in Arachnids?**

- a. Maxillae
- b. Walking legs
- c. Antennae
- d. Chelicerae

**189. Which insects do NOT damage horticultural crops (as immatures)?**

- a. Sawflies
- b. Whiteflies
- c. Butterflies
- d. Caddisflies

**190. Which insects would be classified as decomposers?**

- a. Termites
- b. Thrips
- c. Crickets
- d. Stoneflies

**191. Which sclerite lies below the epistomal suture?**

- a. Frons
- b. Clypeus
- c. Labrum
- d. Gena

**192. Chewing mouthparts are not found in:**

- a. Crickets
- b. Thrips
- c. Weevils
- d. Earwigs

**193. Which statement about insect development is correct?**

- a. The embryo is nourished by yolk stored in the egg.
- b. The germ band develops in the embryo.
- c. The serosa forms the yolk sac membrane.
- d. All of these.

**194. Which of the following are specialized type of chordotonal organs situated on second antennal segment of most of the insects?**

- a. Tympanal organs
- b. Brunner's organs
- c. Johnston's organs
- d. Toilet organs

**195. Which order is both ectognathous and wingless?**

- a. Collembola
- b. Phthiraptera
- c. Thysanoptera
- d. Diplura

**196. Why are termites classified as orthopteroids?**

- a. They are wingless
- b. They have cerci and chewing mouthparts
- c. They are social insects
- d. All of these

**197. A terrestrial arthropod with more than five pairs of legs could not be a(n):**

- a. Isopod
- b. Centipede
- c. Arachnid
- d. Symphylan

**198. Which group of insects has incomplete metamorphosis?**

- a. Fleas
- b. Beetles
- c. Flies
- d. Bugs

**199. Which insects do not feed on plants?**

- a. Thrips
- b. Whiteflies
- c. Lacewings
- d. Sawflies

**200. The recurrent nerve joins:**

- a. The two lobes of the tritocerebrum
- b. The tritocerebrum with the subesophageal
- c. The frontal and hypocerebral ganglia
- d. The tritocerebrum with the frontal ganglion

**201. If an insect's developmental threshold is 15 degrees F, how many degree-days (DD) does it on a day when the average temperature is 72 degrees F?**

- a. 87 DD
- b. 57 DD
- c. 30 DD
- d. No way to tell

**202. Broad-spectrum detoxification enzymes are commonly found in:**

- a. Blood feeding insects
- b. Polyphagous herbivores
- c. Insect parasitoids
- d. All of these

**203. If a population's intrinsic rate of increase ("r") is less than one, then the population is:**

- a. Growing rapidly
- b. Stable
- c. Growing slowly
- d. Declining

**204. An insect pest which GEP remains well above the DB and EIL is called:**

- a. Major pest
- b. Key pest
- c. Minor pest
- d. Occasional pest

**205. When a newly emerged queen honey bee hears the sound of "piping and quacking" from unemerged queens, she will find and destroy their cells. Apparently, these sounds are an example of:**

- a. A releaser
- b. A transverse orientation
- c. Appetative behavior
- d. A fixed action pattern

- 206. Behavior patterns that change drastically over the lifetime of an insect are probably:**
- a. Learned
  - b. Innate
  - c. Imprinted
  - d. Afferent
- 207. What information could NOT be determined from a life table?**
- a. Significant mortality factors
  - b. Intrinsic rate of increase
  - c. Environmental carrying capacity
  - d. Stage-specific mortality rate
- 208. A certain insect usually becomes active each day at dusk. If kept in the dark all day, it will still become active around sunset even though it cannot see the sun. This behavior is an example of:**
- a. A circadian rhythm
  - b. Transverse orientation
  - c. Diurnal behavior
  - d. Exogenous entrainment
- 209. Worker ants remember landmarks around their nest entrance & use these as a guide when returning home. This behavior is an example of:**
- a. Imprinting
  - b. Conditioning
  - c. Habituation
  - d. Instrumental learning
- 210. Chemicals released by threatened aphids elicit defensive behavior among the ants that tend these aphids. Such chemicals would be best described as:**
- a. Allomones
  - b. Hormones
  - c. Pheromones
  - d. Kairomones
- 211. Substances in the frass produced by bark beetles attract predators & parasites to trees that are infested by these beetles. Such substance would be best described as**
- a. Allomones
  - b. Hormones
  - c. Pheromones
  - d. Kairomones
- 212. When predator changes its search image in response to a change in the density of prey, it exhibits a(n):**
- a. Conditioned response
  - b. Functional response
  - c. Numerical response
  - d. None of these
- 213. Which insects are most likely to pollinate foul-smelling flowers?**
- a. Hover flies
  - b. Honey bees
  - c. Carrion beetles
  - d. Stink bugs
- 214. If an insect's subesophageal ganglion were paralyzed, it would be unable to:**
- a. Eat
  - b. See
  - c. Fly
  - d. Walk
- 215. A type of parthenogenesis in insects in which only females are produced is termed as:**
- a. Arrhenotoky
  - b. Amphytoky
  - c. Thelytoky
  - d. Paedogenesis
- 216. Ants remember a food trail by the location of landmarks along the way. This is an example of:**
- a. Conditioning
  - b. Imprinting
  - c. Habituation
  - d. Instrumental learning
- 217. A male empiid fly courts a female for 20 minutes and then gives up after he fails to elicit any response. This is an example of:**
- a. Conditioning
  - b. Imprinting
  - c. Habituation
  - d. Instrumental learning
- 218. The central nervous system of an insect controls the:**
- a. Mandibles and maxillae
  - b. Legs and wings
  - c. Heart and foregut
  - d. None of these

**219. The major differences between European and Africanized honey bees are:**

- a. Physical (size)
- b. Behavior (aggressiveness)
- c. Ecological (habitat)
- d. All of these

**220. The information content of a sound signal is based on changes in:**

- a. Amplitude (loudness)
- b. Duration (pulsation)
- c. Frequency (pitch)
- d. All of these

**221. An ommatidium is the functional unit of the:**

- a. Protocerebrum
- b. Compound eye
- c. Subesophageal ganglion
- d. Male reproductive system

**222. Which of these could be an example of an entrainment cue?**

- a. Odor of a predator
- b. Darkness after sunset
- c. Odor of a host plant
- d. Darkness before sunrise

**223. It is possible that an immature insect might imprint on:**

- a. Odor of a predator
- b. Darkness after sunset
- c. Odor of a host plant
- d. Darkness before sunrise

**224. Which of these is a primary ecological event?**

- a. Competition
- b. Parasitism
- c. Immigration
- d. None of these

**225. Which of these is a secondary ecological event?**

- a. Emigration
- b. Mortality
- c. Predation
- d. None of these

**226. Which of these is an example of a Mullerian mimic?**

- a. A bee that looks like a wasp
- b. A fly that looks like a bee
- c. A katydid that looks like a leaf
- d. A caterpillar that looks like a snake

**227. Family of the *Helicoverpa armigera***

- a. Noctuidae
- b. Plutellidae
- c. Chrysomelidae
- d. Pyraustidae

**228. Visceral (stomodaeal) Nervous System consists of:**

- a. Frontal ganglion
- b. Hypocerebral ganglion
- c. Recurrent nerve
- d. Subesophageal ganglion

**229. Which one of the following is a part of insect brain:**

- a. Optic lobes
- b. Neurosecretory cells
- c. Circumesophageal commissure
- d. Tritocerebrum

**230. Which digestive organ prevents regurgitation in insects:**

- a. Gizzard
- b. Crop
- c. Oesophagous
- d. Cibarium

**231. What is bee-bread?**

- a. Honey & pollen
- b. Pollen & nectar
- c. Honey & wax
- d. pollen and nectar or honey

**232. Which one of the following has haploid chromosomes?**

- a. Queen
- b. Drone
- c. Workers
- d. All of these

**233. Which one is a beetle?**

- a. Caddisfly
- b. Cicada
- c. Firefly
- d. Midges

**234. Which of the following order constitutes the largest bioluminescent group of insects?**

- a. Homoptera
- b. Hemiptera
- c. Coleoptera
- d. Diptera

**235. All species of order \_\_\_\_\_ show hypermetamorphosis**

- a. Diptera
- b. Strepsiptera
- c. Hymenoptera
- d. Coleoptera

**236. Which color shows moderately hazardous toxicity?**

- a. Blue
- b. Yellow
- c. Brown
- d. White

**237. *Tanymecus indicus* feed on the crop**

- a. Paddy
- b. Maize
- c. Sorghum
- d. Mustard

**238. Which one is used as an antidote of organochlorine insecticides?**

- a. Diazepam
- b. Atropine
- c. Sodium sulphate
- d. All of these

**239. Active ingredient in Tracer is:**

- a. Chlorpyrifos
- b. Fenvalerate
- c. Spinosad
- d. Chlorantriliprole

**240. Chemicals which kill the pests are called.**

- a. Insecticides
- b. Pesticides
- c. Acaricides
- d. Avicides

**241. Immature stage of beetle is termed as**

- a. Larva
- b. Caterpillar
- c. Grub
- d. Maggot

**242. Mites have pairs of legs and two distinct body regions**

- a. 2
- b. 4
- c. 6
- d. 3

**243. Predator has type of mouthparts:**

- a. Sponging
- b. Rasping & sucking

- c. Chewing  
d. Piercing

**244. Instar is \_\_\_\_\_.**

- a. Immature of moths  
b. Stage b/w two moults  
c. A larva  
d. Crop pest

**245. Cotton jassid belongs to order of insect**

- a. Homoptera  
b. Thysanoptera  
c. Coleoptera  
d. Orthoptera

**246. If an insecticide has 170 ml / acre dose rate and a pack size of 700 ml, how much acre it will spray?**

- a. 4  
b. 2  
c. Several  
d. Single

**247. If 500 m<sup>2</sup> sprayed with 16 liter of knapsack sprayer, how much spray volume is used per acre?**

- a. 80 liter  
b. 128 liter  
c. 150 liter  
d. 130 liter

**248. PB-rope L is \_\_\_\_\_.**

- a. Novel insecticide  
b. Sex pheromone  
c. Carbamate  
d. Organophosphate

**249. IGR affects**

- a. Egg development  
b. Pupal development  
c. Larval development  
d. Adult emergence

**250. Type of nozzle used for spraying a weedicide is:**

- a. ULV disc  
b. T-jet  
c. Hollowcone  
d. None of them

**251. Active ingredient in Steward is:**

- a. Chlorpyrifos  
b. Oxadiazine  
c. Spinosad  
d. Indoxacarb

**252. Hollowcone nozzle is used to spray:**

- a. Weedicide  
b. Insecticides  
c. Fungicides  
d. All of these

**253. Pest spectrum of Steward on cotton crop is:**

- a. Heliothus only  
b. Earias & Heliothus  
c. Heliothus, Spodoptera, Earias  
d. Pectinophora

**254. *Helicoverpa armigera* eggs are**

- a. In bunchies under leaf  
b. Scattered mainly 1/3 portion of plant  
c. Not visible without lenses  
d. oval shaped and on flower

**255. Cotton sticks should be placed to reduce pink bollworm carry over:**

- a. Horizontally  
b. Vertically  
c. Inside store  
d. None of these

**256. PB-rope is a successful IPM tool for management of:**

- a. Army worm  
b. American bollworm  
c. Pink bollworm  
d. spotted bollworm

**257. Pink bollworm take diapause in**

- a. Soil  
b. Unopened boll  
c. Double seed  
d. All of above

**258. Green band is present on fore-wing of moth of**

- a. Army worm
- b. *Earias insulana*
- c. *Earias vitella*
- d. None of these

**259. Rosette flower is attack of**

- a. Pink bollworm
- b. American bollworm
- c. Armyworm
- d. *Earias vitella*

**260. Gurdaspur borer over-winter as :**

- a. Larva
- b. Pupa
- c. Adult

**261. Brinjal fruit borer over-winter as:**

- a. Larva
- b. Pupa
- c. Adult
- d. eggs

**262. Which one of the following stage of maize stem borer damage maize?**

- a. Adult
- b. Larvae
- c. Both larvae & adult
- d) Pupae

**263. Rice stem borer hibernate as:**

- a. Larva
- b. Pupa
- c. Adult
- d. None of these

**264. Pesticide ordinance was imposed in:**

- a. 1971
- b. 1973
- c. 1975
- d. 1979

**265. ETL level of Thrips is:**

- a. 8 / leaf
- b. 12 / leaf
- c. 5 / leaf
- d. None of these

**266. Rice burn is caused by:**

- a. Rice hispa
- b. White backed plant hopper
- c. Rice green leaf hopper
- d. Brown hopper

**267. *Chilo partellus* lay eggs on: .**

- a. Lower side of leaves
- b. Middle portion of leaves
- c. Upper side of leaves
- d. None of these

**268. *Bracon hebetor* is:**

- a. Larval parasitoid
- b. Pupal parasitoid
- c. Nymphal parasitoid
- d. Egg parasitoid

**269. *Epipyrope melanoluca* is:**

- a. Larval parasitoid
- b. Pupal parasitoid
- c. Nymphal parasitoid
- d. Egg parasitoid

**270. Red pumpkin beetle lay eggs**

- a. In the soil
- b. On upper side of leaves
- c. On middle portion of leaves
- d. Inside the stem

**271. Mango mealy bug has \_\_\_\_\_ generation**

- a. 4
- b. 1
- c. 3
- d. 6

**272. First insect fossil was found in:**

- a. England
- b. Russia
- c. Scotland
- d. USA

**273. The international code of zoological nomenclature consists of:**

- a. 57 articles
- b. 67 articles
- c. 77 articles
- d. 87 articles

**274. Which one of the following is not head sclerite?**

- a. Gena
- b. Frons
- c. Epimeron
- d. Vertex

**275. Which one of the following is cross vein?**

- a. Costa
- b. Radial
- c. Media
- d. Cubitus

**276. In Hymenoptera, the first abdominal segment which is fused with metathorax is called**

- a. Cornical
- b. Epiproct
- c. Propodium
- d. Gaster

**277. Which one of the following is an abdominal appendages**

- a. Gonopore
- b. Cerci
- c. Waist
- d. Apophysis

**278. Which of the following muscles are directly related to wings?**

- a. Dorsal muscle
- b. Axillary muscle
- c. Basalar muscle
- d. Sub-alar muscle

**279. Economic threshold level of jassid is:**

- a. 1
- b. 2
- c. 3
- d. 4

**280. The alimentary canal of insect is derived from:**

- a. Ectoderm
- b. Ectoderm & Endoderm
- c. Ectoderm & mesoderm
- d. Ectoderm & mesoderm

**281. Most of the caterpillar have pseudolegs on abdominal segments:**

- a. 2-5 & 10
- b. 3-6 & 10
- c. 6-10
- d. 5-8 & 10

**282. Which one of the following is wingless hexapod with six abdominal segments?**

- a. Diplura
- b. Thysanura
- c. Collembola
- d. Protura

**283. Monocondylic single mandible is found in:**

- a. Homoptera
- b. Thysanoptera
- c. Hymenoptera
- d. Diptera

**284. Most of the insects excrete 80-90 % of their nitrogen waste in the form of:**

- a. Urea
- b. Uric acid
- c. Ammonia
- d. Ammonium nitrate

**285. Which of the following is systemic insecticide**

- a. Methamidophos
- b. Imidachloprid
- c. Cypermethrin
- d. None of these

**286. The density of pest population at which control measure should be applied is called:**

- a. GEL
- b. PBL
- c. EIL
- d. ETL

**287. The fertilized female of lac insect lays eggs ranging from:**

- a. 100-200
- b. 200-500
- c. 500-700
- d. Less than 100

**288. Which of the following bugs is a pest of brinjal?**

- a. Painted bug
- b. Plant bug
- c. Lace bug
- d. Stink bug

**289. Sugarcane borer which does not belong to the family pyralidae?**

- a. *Ammalocera depressella*
- b. *Chilo infuscatelus*
- c. *Sesamia inferens*
- d. *Chilo auricilia*

**290. Which of the following is neuropteran predators?**

- a. *Brumus*
- b. *Chrysoperla*
- c. *Cryptolaemus*
- d. *Apis*

**291. Chemical name of Proclaim is:**

- a. Indoxacarb
- b. Emmamectan-benzoate
- c. Cypermethrin
- d. Bifenthrin

**292. Proleg of mole cricket is**

- a. Natatorial type
- b. Saltatorial type
- c. Fossorial type
- d. Cursorial type

**293. Trade name of diafenthion is:**

- a. Endosulfon
- b. carbofuron
- c. Polo
- d. bestox

**294. Chemical present in Mospilon**

- a. Buprofezin
- b. Imidacloprid
- c. Acetamaprid
- d. Bifenthrin

**295. Malathion is an insecticide**

- a. Locosystemic
- b. Entometatotoxic systemic
- c. Endolytic systemic
- d. None of these

**296. ETL level of mites in cotton is :**

- a. 12-15
- b. 8-10
- c. 6-7
- d. no ETL

**297. DDT discovered in:**

- a. 1941
- b. 1939
- c. 1945
- d. None of these

**298. Which term is used for the movement of coxa towards body**

- a. Protraction
- b. Adduction
- c. Abduction
- d. Promotion

**299. If one mesometathoracic & eight abdominal spiracles are functional in insects, then the respiratory system is called:**

- a. Holoneustic
- b. Perineustic
- c. Hemineustic
- d. Metaneustic

**300. The origin of foregut is:**

- a. Ectodermal
- b. Mesodermal
- c. Endodermal
- d. None of these

**301. Foregut is lined internally by:**

- a. Peritrophic membrane
- b. Epithelial membrane
- c. Intima
- d. Taenidia

**302. The function of peritrophic membrane is:**

- a. Absorption
- b. Assimilation
- c. Protection
- d. All of these

**303. The nervous system of insect is derived from:**

- a. Ectoderm
- b. Mesoderm
- c. Endoderm & mesoderm
- d. Endoderm

**304. Stick insects & leaf insects belongs to the order:**

- a. Orthoptera
- b. Embioptera
- c. Phasmida
- d. Dictyoptera

**305. Order Odonata includes:**

- a. May flies
- b. Dragon flies
- c. Stone flies
- d. None of these

**306. Which of the following genus is of Cotton stainer? .**

- a. Pectinophora
- b. Dytiscus
- c. Helicoverpa
- d. Dysdercus

**307. In the formation of cuticle, which of the following layer is secreted first?**

- a. Exo-cuticle
- b. Wax layer
- c. Endo-cuticle
- d. Cuticulin layer

**308. Moulting fluid is able to digest:**

- a. Cement layer
- b. Cuticulin layer
- c. Endo-cuticle
- d. Exo-cuticle

**309. Pheromones are synthesized by:**

- a. Thoracic glands
- b. Neuro-secretory cells
- c. Glandular epidermal cells
- d. All of the above

**310. The gland which produces pheromones in queen honey bee is:**

- a. Mandibular glands
- b. Maxillary glands
- c. Labial glands
- d. Pharyngeal glands

**311. Which of the following organs are involved in excretion?**

- a. Malpighian tubules
- b. Integument
- c. Wall of the alimentary canal
- d. All of these

- 312. Factors on which penetration of insecticide through insect cuticle does not depend on:**
- a. Thickness of the cuticle
  - b. Chemical nature of the cuticle
  - c. Components of the cuticle
  - d. Nature of the carriers and solvents
- 313. In physiological considerations, the resistance to insecticide may be developed due to:**
- a. Conversion of toxicant to non toxic metabolites
  - b. Excretion of toxicant
  - c. Storage of the toxicant
  - d. All of the above
- 314. Nicotinic effects of organo-phosphatic insecticide result in:**
- a. Giddiness
  - b. stiffness of the neck
  - c. Ataxia
  - d. None of these
- 315. Insects feeding on plants of several genera within a family are called**
- a. Phytopagous
  - b. Polyphagous
  - c. Oligophagous
  - d. Monophagous
- 316. Which of the following order comprises phytophagous insects?**
- a. Odonata
  - b. Phasmida
  - c. Siphonoptera
  - d. Mallophaga
- 317. Which of the following order comprises predacious insect?**
- a. Phasmida
  - b. Neuroptera
  - c. Isoptera
  - d. Lepidoptera
- 318. Which of the following order comprises parasitic insects?**
- a. Hymenoptera
  - b. Thysanoptera
  - c. Phasmida
  - d. Lepidoptera
- 319. Sexual dimorphism is found in:**
- a. Mango mealy bug
  - b. Aphid
  - c. Whitefly
  - d. Jassid
- 320. Which of the following cotton pest belong to family Pyrrhocoridae?**
- a. Dysdercus
  - b. Pectinophora
  - c. Earias
  - d. Bemisia
- 321. Which of the following insect belongs to family Dermestidae?**
- a. *Sytophilus oryzae*
  - b. *Trogoderma granarium*
  - c. *Tribolium castaneum*
  - d. None of these
- 322. Which of the following produces more lac, & is important for commercial production of lac?**
- a. Male
  - b. Female
  - c. Nymph
  - d. All of the above
- 323. The fertilized female of mulberry silkworm lays eggs within 24 hours:**
- a. 100-200
  - b. 200-300
  - c. 300-400
  - d. 400-500
- 324. In honey bees, when the larvae are fed on regular diet of pollen & honey, which cast is produced?**
- a. Queen
  - b. Workers
  - c. Drones
  - d. All of these
- 325. Where the nectar is converted into honey?**
- a. In the alimentary canal of the queen
  - b. In the alimentary canal of the worker
  - c. In royal chamber
  - d. In special cell of the hive

**326. The average locust swarm spread over:**

- a. 5 km<sup>2</sup>
- b. 10 km<sup>2</sup>
- c. 15 km<sup>2</sup>
- d. 20 km<sup>2</sup>

**327. Which of the following does not belong to order Lepidoptera?**

- a. Groundnut leaf minor
- b. Pea leaf minor
- c. Citrus leaf minor
- d. None of these

**328. The type of parthenogenesis where only males are produced is:**

- a. Arrhenotoky
- b. Thelytoky
- c. Amphitoky
- d. None of these

**329. Originally, the phytophagous insects were:**

- a. Monophagous
- b. Polyphagous
- c. Oligophagous
- d. All of these

**330. The minimum period to be given for the assessment of effectiveness of a biocontrol agent is:**

- a. 2 years
- b. 3 years
- c. 4 years
- d. 5 years

**331. Vertical resistance is also called:**

- a. Oligogenic
- b. Specific
- c. Monogenic
- d. All of these

**332. Horizontal resistance is also known as:**

- a. Non-specific
- b. General
- c. Polygenic
- d. All of these

**333. The device fitted at the end of the spray-lance & is used for atomization is:**

- a. Hose
- b. Cut off device
- c. Boom
- d. Nozzle

**334. In solid cone nozzle, the solid cone of liquid is formed due to:**

- a. Bigger size of the cap
- b. Bigger size of the orifice plate
- c. Central hole in swirl plate
- d. Small size of strainer

**335. The nozzle used for producing mist is:**

- a. Blast nozzle
- b. Rotatory energy nozzle
- c. Kinetic energy nozzle
- d. Annular nozzle

**336. The nozzle used to produce fog is:**

- a. Gaseous energy nozzle
- b. Thermal energy nozzle
- c. Centrifugal energy nozzle
- d. Kinetic energy nozzle

**337. The greater part of the fat body is made of cell called:**

- a. Haemocytes
- b. Trophocytes
- c. Lamphocytes
- d. Nephrocytes

**338. Which of the following is European species:**

- a. *Apis dorsata*
- b. *Apis mellifera*
- c. *Apis indica*
- d. *Apis florea*

**339. *Bacillus thuringiensis* is most effective at pH:**

- a. 3-6
- b. 9-10
- c. 11-14
- d. all of these

**340. Which one of the following is considered as a source of BLB in rice?**

- a. *Scirpophaga innotata*
- b. *S. incertulus*
- c. *Pnaphalocrosis medinalis*
- d. None of these

**341. Only bollworm that also attacks on tender growing shoot of cotton plant is:**

- a. *Earias* species
- b. *Pectinophora gossypiella*
- c. *Helicoverpa armigera*
- d. *Spodoptera litura*

**342. Which one the families does not have fungivorous insects?**

- a. Macrotermitidae
- b. Scolytidae
- c. Platypodidae
- d. None of these

**343. Macro environment is \_\_\_\_\_**

- a. Environment very close to an organism
- b. General environment
- c. Overall environment of a certain area.
- d. All of these

**344. Ecological action is:**

- a. Effect of various factors on the life on an individual
- b. Effect of temperature and humidity on the life of an individual
- c. Effect of factors other than temperature and humidity on the life of an individual
- d. None of these

**345. The insects with high reproductive rates and low survival rates are called:**

- a. r-strategists
- b. k-strategists
- c. s-strategists
- d. j-strategists

**346. \_\_\_\_\_ are the measures of size of insect's population based on the magnitude of their effects and products.**

- a) Relative estimates
- b. Population indices
- c) Absolute estimates
- d) None of these

**347. White-head is caused in rice due to attack of:**

- a) Rice Hispa
- b. Rice hoppers
- c) Rice leafolder
- d) Rice borers

**348. \_\_\_\_\_ is the most important physical factor which effects the life of an insect**

- a. Temperature
- b. Humidity
- c. Light
- d. None of the above.

**349. Optimum temperature range for majority of the insects is:**

- a. 28-30 °C
- b. 40-50 °C
- c. 80-90 °C
- d. 10-20 °C

**350. Apholate is an example of:**

- a. Pheromone
- b. Synergost
- c. IGR
- d. Chemosterilant

**351. Butanone acetate is sex pheromone specific for:**

- a. *B. zonata*
- b. *B. dorsalis*
- c. *B. correcta*
- d. *B. cucurbitae*

**352. Directed movement of the insects in response to light are called:**

- a. Phototaxis
- b. Photokinesis
- c. Nocturnal
- d. None of above

**353. Non directional movements of the insects in response to light are called:**

- a. Phototaxis
- b. Photokinesis
- c. Nocturnal
- d. None of above

**354. Insects which are active in the day time are called:**

- a. Nocturnal
- b. Diurnal
- c. Crepuscular
- d. None of above

**354. Insects which are active in the day time are called**

- a. Nocturnal
- b. Diurnal
- c. Crepuscular
- d. None of above

**355. Insects which are active in the night time are called**

- a. Nocturnal
- b. Diurnal
- c. Crepuscular
- d. None of above

**356. Insects which are active at dawn or dusk are called as**

- a. Nocturnal
- b. Diurnal
- c. Crepuscular
- d. None of above

**357. Range of the light spectrum which is perceived by the insect is**

- a. 2500- 7000 ° A
- b. 500-1500 ° A
- c. 9000-15000 ° A
- d. None of these

**358. The environment in which a community lives is called as**

- a. Biotype
- b. Biome
- c. Biosphere
- d. None of these

**359. A regional ecosystem is called**

- a. Biotype
- b. Biome
- c. Biosphere
- d. None of these

**360. The entire earth having the living organisms is called as**

- a. Biotype
- b. Biome
- c. Biosphere
- d. None of these

**361. 100 ° C is equal to**

- a. 212 ° F
- b. 100 ° F
- c. 300 ° F
- d. None of above.

**362. Freezing point of water is**

- a. 32 ° F
- b. 100 ° F
- c. 212 ° F
- d. None of these

**363. Boiling point of water is**

- a. 32 ° F
- b. 100 ° F
- c. 212 ° F
- d. None of these

**364. Most efficient thermometers used are**

- a. Liquid filled thermometers
- b. Gas filled thermometers
- c. Metallic thermometers.
- d. None of these

**365. Alcohol responds to change in temperature in**

- a. 7-8 seconds  
seconds  
c. 1-2 seconds.  
seconds
- b. 10-20  
d. 05-10

**366. Mercury filled thermometer responds to the change in temperature in**

- a. 25-28 seconds  
c. 7-8 seconds.
- b. 35-40 seconds  
d. 05-10 seconds

**367. The study of one or more individuals of a species in relation to environment is called**

- a. Autecology  
c. Biocenology
- b. Synecology  
d. None of these

**368. The study of community in relation to environment is called**

- a. Autecology  
c. Biocenology
- b. Synecology  
d. None of these

**369. The competition with in the individual of a species is called**

- a. Intra specific competition  
c. Commensalisms
- b. Inter specific competition  
d. None of these

**370. The competition between the individual of different species is called**

- a. Intra specific competition  
c. Commensalisms
- b. Inter specific competition  
d. None of these

**371. The interaction in which at least one species is harmed is called as**

- a. Positive interaction  
c. Commensalisms
- b. Negative interaction  
d. None of these

**372. The interaction in which at least one species is benefited & other is not harmed is called as**

- a. Positive interaction  
c. Commensalisms
- b. Negative interaction  
d. None of these

**373. The interaction in which both species are benefited is called as**

- a. Positive interaction  
c. Commensalisms
- b. Negative interaction  
d. Symbiosis

**374. The type of interaction in which the food is exchanged between 2 individuals of the same species or different species is called as**

- a. Trophallaxix  
c. Negative interaction
- b. Positive interaction  
d. Commensalisms

**375. The association in the normal situation in which both species live neutral known as**

- a. Neutral interaction  
c. Negative interaction
- b. Positive interaction  
d. Commensalisms

**376. Biotic components of an ecosystem are**

- a. Animals  
c. Both animals and plants
- b. Plants  
d. None of these

**377. Natality is**

- a. Birth rate  
c. Rate of increase in size.
- b. Death rate  
d. None of these

**378. Mortality is**

- a. Birth rate
- b. Death rate

c. Rate of increase in size. d. None of these

**379. Living place of an individual is called**

- a. Habitat b. Niche.  
c. Environment d. None of these

**380. Role of an individual in the community is called as**

- a. Habitat b. Niche.  
c. Environment d. None of these

**381. Acarology is study of**

- a. Mites b. Insects  
c. Birds d. Rodents

**382. Mites and ticks are collectively called**

- a. Insects b. Mammals  
c. Arachnids d. Rodents

**383. Mites belong to Class**

- a. Insecta b. Arachnida  
c. Crustacea d. Symphyla

**384. Mites are second most diverse group of living organisms after -----**

- a. Birds b. Mammals  
c. Insects d. Rodents

**385. Mites have generally -----pairs of walking legs**

- a. 2 b. 3  
c. 4 d. Many

**386. Mites have ----- pair of antenna**

- a. 1 pair b. 2 pairs  
c. 0 pair d. 4 pairs

**387. In mites the body is divided into ----- regions**

- a. 1 b. 2  
c. 3 d. 4

**388. When head and thorax are fused they are collectively called**

- a. Head b. Thorax  
c. Abdomen d. Cephalothorax

**389. Two spotted spider mites belong to family**

- a. Phytoseiidae b. Tetranychidae  
c. Cunaxidae d. Tenuipalpidae

**390. Any organism which harms or causes damage to man directly or indirectly called**

- a. Insect Pest b. Pest  
c. Agriculture Pest d. None of above

**391. Scutellum is the structure present on**

- a. Head b. Thorax  
c. Abdomen d. Wings

**392. Phylum arthropoda is divided in to**

- a. 6 classes b. 8 classes  
c. 10 classes d. 12 classes

**393. Viviparous insects produce**

- a. Eggs
- b. Young ones
- c. Nymph
- d. None of above

**394. A free living animal that attacks and feeds on other organisms is called**

- a. Predator
- b. Parasite
- c. Parasitoid
- d. Scavenger

**395. The study of insects is called**

- a. Entomology
- b. Applied Entomology
- c. Zoology
- d. None of above

**396. Insects which are found everywhere are called**

- a. Cosmopolitan insects
- b. Household Insects
- c. Store grain insects
- d. None of above

**397. The study of form and structure of insects is called**

- a. Insect morphology
- b. Insect Physiology
- c. Insect Ecology
- d. None of above

**398. Whiteflies have eggs**

- a. Elongate
- b. Conical
- c. Stalked
- d. Oval

**399. Three main parts of antennae**

- a. Scape, Pedicel, Flagellum
- b. Ring, Funicle, Club
- c. Scape, Club, Flagellum
- d. Pedicel, Scape, Club

**400. Antennae are lacking in insect order**

- a. Protura
- b. Collembola
- c. Diptera
- d. Thysanura

**401. A material which is used to dilute active material is called**

- a. Adjuvant
- b. Adhesive
- c. Carrier
- d. Agitation

**402. The food of honey bee queen is called**

- a. Jelly
- b. Royal jelly
- c. Bee bread
- d. Nectar

**403. Rearing of silk worm for commercial production of silk is called**

- a. Sericulture
- b. Apiculture
- c. Floriculture
- d. Lac-culture

**404. Lac is produced by insects**

- a. *Bombyx mori*
- b. *Laceifera lacca*
- c. *Apis dorsata*
- d. *Apis cerana*

**405. The ability of a plant by means of which it is less damaged by insects is**

- a. Tolerance
- b. Pest avoidance
- c. Plant Resistance
- d. Resistance

**406. A population or group of insects composed of a single genotype is called**

- a. Piloity
- b. Biotype
- c. Genotype
- d. Phenotype

**407. What is most social insect**

- a. Black ants
- b. Termites
- c. Honey bee
- d. None of above

**408. Which insect have bacteria and protozoa in their digestive system**

- a. Termites
- b. Ants
- c. Silver fish
- d. None of above

**409. Butterflies have antennae**

- a. Capetates
- b. Clavate
- c. Genuculata fish
- d. Flabellata

**410. Example of monophagous insect is**

- a. Helicoverpa armigera
- b. Ants
- c. Green lace wing
- d. None of above

**411. The mixture of active and inert ingredients is called**

- a. Formulation
- b. Dose
- c. Active ingredient
- d. None of above

**412. What is antidote**

- a. Treatment given to counteract the effect of poison
- b. No action against poison
- c. Increase the action of poison
- d. None of above

**413. The parasite which requires only one host for its complete life cycle is called**

- a. Monophagous parasite
- b. Zoophagous parasite
- c. Phytophagous parasite
- d. Entomophagous parasite

**414. The best example of parasites are**

- a. Ichneumonids
- b. *Trichogramma* spp,
- c. Cotesia sp
- d. All of above

**415. The pesticide which is used for killing or controlling the eggs of insects is**

- a. Avicide
- b. Fungicide
- c. Pesticide
- d. Ovicide

**416. The chemical used of control of insects is called**

- a. Avicide
- b. Insecticide
- c. Pesticide
- d. Fungicide

**417. Cypermethrin, Deltamethrin, Permethrin are example of**

- a. Pyrethroids
- b. Organophosphates
- c. Organochlorine
- d. Carbamate

**418. Desert locust is**

- a. Migrant pest
- b. Occasional pest
- c. Key pest
- d. Potential pest

**419. Use of living organism to bring down the pest population below economic threshold level is called**

- a. Biological control
- b. Cultural control
- c. Physical control
- d. Natural control

**420. An egg parasitoid of lepidopterous insect is**

- a. *Trichogramma* sp
- b. *Apanteles* sp

c. Water joint beetle

d. Ichneumon

**421. Population prediction of a particular sp with in field is called**

- a. Forecasting
- c. Surveillance

- b. Haemo spora
- d. Pest scouting

**422. Zinc phosphide is**

- a. Rodenticide
- c. Insecticide

- b. Pesticide
- d. Weedicide

**423. Insects are**

- a. Cold blooded animals
- c. None of above

- b. Warm blooded animals
- d. a & b

**424. Most of insects require**

- a. Vitamin A
- c. Vitamin D

- b. Vitamin B
- d. Vitamin C

**425. Which is the strongest animal of the world**

- a. Whales
- c. Birds

- b. Elephant
- d. Insects

**426. The fleas do**

- a. Fly
- c. may or may not fly

- b. Neverfly
- d. None of these

**427. The fleas do**

- a. Fly
- c. May or may not fly

- b. Never fly
- d. None of these

**428. Which insect cut the root of the plant**

- a. Mole cricket
- c. Ground beetle

- b. Pyrilla
- d. Grylloblatta

**429. What is the family of Mosquito**

- a. Culicidae
- c. Tineidae

- b. Pyralidae
- d. Bombycidae

**430. Photogenic organs are present in**

- a. Flies
- c. Wasp

- b. Fire flies
- d. Honey bee

**429. *Chrysoperla carnea* is known as**

- a. Predator
- c. Parasite

- b. Pest
- d. None of these

- 430. In honey bees a flight for mating purpose is called**  
a. Nuptial flight  
b. Straight flight  
c. Tactile flight  
d. None of above
- 431. Total or complete resistance against any adverse condition is called**  
a. Immunity  
b. Tolerance  
c. Resistance  
d. Plant resistance
- 434. Costal margin of wing of insect is**  
a. Frontal margin  
b. Outer margin  
c. Hinder margin  
d. Inner margin
- 435. Apical margin of wing of insect is**  
a. Hinder margin  
b. Frontal margin  
c. Outer margin  
d. Inner margin
- 436. Dragonfly and damselfly have type of legs**  
a. Frssotial  
b. Metatorial  
c. Basket like  
d. Raptorial
- 437. Jumping legs present in grasshopper known as**  
a. Natatorial  
b. Raptorial  
c. Cursorial  
d. Saltatorial
- 438. Function of Exo cuticle in insect is**  
a. Rigidity of body  
b. Impermeability of water  
c. Prevent evaporation  
d. Toughness of flexibility
- 439. The insect skeleton is composed of series of plates called**  
a. Seclerites  
b. Conjunctivae  
c. Sutures  
d. Somites
- 440. Fast acting pharomones are**  
a. Primers  
b. Releasers  
c. Semio chemicals  
d. Allelochemicals
- 441. Social behaviour is present in**  
a. Termites  
b. Ants bees  
c. Butterflies  
d. Termites, ant, Bees
- 442. What are productive insects**  
a. Silkworms, lac insects, honey bees  
b. Parasites, predators, pollinators  
c. Silkworm, Pollinators, predators  
d. Lac insect, Honey bees, Pollinators
- 443. The rapid reappearance of the pest population in injurions number is called**  
a. IPM  
b. IPC  
c. Pest resurgence  
d. Pest outbreak
- 444. Various methods of pest scouting are**  
a. Maryos method  
b.  
Diagonal method  
c. Zig zag method  
d. All of these
- 445. Potential pest also called**  
a. Secondary pest  
b. Major pest  
c. Minor pest  
d. Key pest
- 446. Aphis lions are predator of**  
a. Aphid  
b. Jassid

c. Sugarcane borer

d. Pyrilla

- 447. Pheromone used against the fruitfly is**  
a. Methyl eugenol  
b. Methyl bromide  
c. Cariniform  
d. None of these
- 448. The concentration of toxicant that kills 50% of the exposed organism is called**  
a. LC50  
b. LD50  
c. LC25  
d. None of above
- 449. Toxin refers to a**  
a. Poison  
b. Prisoner material  
c. Both of them  
d. None of above
- 450. A substance that is destructive to nerve tissue is called**  
a. Toxicant  
b. Neurotoxin  
c. Aerosol  
d. Toxin
- 451. A substance added to a pesticide to improve the qualities of pesticides formulation is called**  
a. Adjuvant  
b. Synergist  
c. Activator  
d. Agitator
- 452. A chemical which inhibits clotting mechanisms of the blood are called**  
a. Anticoagulants  
b. Vascular spasm  
c. Toxicant  
d. Poisoning
- 453. What is antidote of anticoagular rodenticide**  
a. Vitamin K  
b. Atropine  
c. Diazepam  
d. Earbiturates
- 454. Diazepam is an antidote of**  
a. Organochlorines  
b. Carbamate  
c. Organophosphate  
d. Pyrethroids
- 455. The pesticide does not allow larval insect pest to moult further is called**  
a. Insect growth regulator  
b. Fumigants  
c. Sterilant  
d. Protectant
- 456. Antecedents prevent pest to cause damage is called**  
a. Sterilant  
b. Protectant  
c. Systemic  
d. Contact
- 457. For safe application of pesticide which things are required**  
a. Goggles, Respirator  
b. Overall, gloves  
c. Head covers  
d. All of above
- 458. The ingredient of pesticide formulation responsible for toxic effect is called**  
a. Active ingredient  
b. Inert ingredient  
c. Dose  
d. Pesticide
- 459. Mosquitoes, bed bugs are**  
a. Permanent parasite  
b. Intermittent parasite  
c. Transitory parasite  
d. Obligate parasite
- 460. Insects that are parasite to other insects are called**  
a. Entomophagous parasite

- b. Zoophagous parasites
- c. Phytaphagous parasite
- d. Noe of these

**461. The control of pest by human controlling activities and laws is called**

- a. Regulatory control
- b. Chemical control
- c. Genetic control
- d. Physical control

**462. Cotton bollworms, sugarcane borers are**

- a. Major pests
- b. Key pests
- c. Minor pests
- d. Secondary pests

**463. All the practices used to control the pest population within certain limit are called**

- a. Artificial control
- b. Natural control
- c. Cultural control
- d. Chemical control

**464. The lowest pest population that will cause economic damage is called**

- a. Economic injury level level
- b. Economic threshold
- c. Economic damage
- d. None of above

**465. The pest which damages the crop and causes a loss in quality or such pest is called**

- a. Insect pest
- b. Pest
- c. Economic pest
- d. None of above

**466. The largest insect of the world**

- a. Elephant beetle
- b. Hairy winged beetle
- c. Grosshopper
- d. Cocas

**467. Where the most insects are abundant**

- a. Tropical region
- b. Sub tropical
- c. Temperate region
- d. None of above

**468. Which sex of mosquito bite to human being**

- a. Male
- b. Female
- c. Both of sex
- d. None of above

**469. Fire flies are**

- a. Flies
- b. Beetles
- c. Fleas
- d. Wasps

**470. Commercial rearing of honey is called**

- a. Sericulture
- b. Apiculture
- c. Flopriculture
- d. Lac culture

**471. What is bee bread**

- a. Honey and wax
- b. Pollen and nectar
- c. Honey and pollen
- d. None of these

**472. The colony of termites is called**

- a. Termitterium
- b. Cage
- c. Hive
- d. Comb

**473. The bees not reared for commercial purpose are called**

- a. Domestic bees
- b. Child bees
- c. Wild bees
- d. None of these

**474. The slow acting pheromones are called**

- a. Primers
- b. Releasers
- c. Semio chemicals
- d. Allelo chemicals

**475. Which enzyme breaks protein**

- a. Carbohydrates
- b. Lipases
- c. Protease
- d. Anylase

**476. Cocomofian in response to touch**

- a. Chemokinensis
- b. Stereokinensis
- c. Hvdrokinensis
- d. Klinokinensis

**477. The hearing organs in grasshopper is**

- a. Johnshons organ
- b. Tympanal organs
- c. Chrodotal organ
- d. None of above

**478. What organ of digestive system prevents the regurgitation**

- a. Crop
- b. Gizzard
- c. Esophagous
- d. Pharynx

**479. Which pheromone cause moulting in insect**

- a. Ecdysone
- b. Juvenils
- c. Activation hormone
- d. None of above

**480. Metalegs of worker honeybee is**

- a. Antenna cleaner
- b. Silk secreting
- c. Cursorial
- d. Pollen collecting

**481. Grasshopper and Cockroach following type of wings**

- a. Tegmina
- b. Eleytra
- c. Stripy
- d. Hemelytera

**482. Compodeiform is type of**

- a. Pupae
- b. Larvae
- c. Eggs
- d. Naid

**483. Housefly have mouth parts**

- a. Siphoning type
- b. Sponging type
- c. Rasping type
- d. Piercing sucking type

- 484. A few species of ants and termites which depend on cultivated plants are**  
a. Agricultural insect  
b. Insect pest  
c. Pest  
d. None of above
- 485. Suffering caused in insects due to lack of food is called**  
a. Aestivation  
b. Starvation  
c. Dormancy  
d. None of above
- 486. Young ones of fly is**  
a. Imago  
b. Maggot  
c. Grub  
d. Pupariem
- 487. Resting stage in endopterygota is called**  
a. Larva  
b. Adult  
c. Pupae  
d. Nymph
- 488. What is T.S.O.**  
a. Technical Sales Officer  
b. Technical Scientific Officer  
c. Tehsil Sales Officer  
d. None of above
- 489. The living organisms that usually large, stronger and more intelligent than the parasite is called**  
a. Host  
b. Prey  
c. Predator  
d. Parasite
- 490. Termites workers are**  
a. May be a non-reproductive male or female  
b. A non-reproductive male  
c. A non-reproductive female  
d. None of above
- 491. Area of each Haemocytometer counting chamber is**  
a. 1 mm<sup>2</sup>  
b. 9 mm<sup>2</sup>  
c. 6 mm<sup>2</sup>  
d. None
- 492. Which solution is used for blood cell counting**  
a. Wright stain  
b. Benedicts reagent  
c. Toisson's solution  
d. All
- 493. Which are basophilic cells**  
a. Prohaemocytes  
b. Granular Hemocytes  
c. Podocytes  
d. Oenocytes
- 494. The blood cells perform the function of coagulation are known as**  
a. Prohemocytes  
b. Cystocytes  
c. Podocytes  
d. Oenocytes
- 495. Granular Hemocytes are produced from**  
a. Prohemocytes  
b. Cystocytes  
c. Vermiform cell  
d. All
- 496. No. of blood cells in one mm<sup>3</sup> is more than**  
a. 1,20,000  
b. 1,40,000  
c. 1,30,000  
d. 1,00,000
- 497. Phagocytosis in the body is done by**  
a. Granular hemocytes  
b. Cystocytes  
c. Oenocytes  
d. All
- 498. The function of hemocytopoietic organs is**  
a. Destruction of blood cell  
b. Production of blood cell  
c. Cleaning of blood  
d. All
- 499. Close packed fibres contains Nuclei in**

- a. Central column
- b. Periphery
- c. Longitudinal rows
- d. At all places

**500. The size of tubular muscle fibers is**

- a. 10-25  $\mu\text{m}$
- b. 10-100  $\mu\text{m}$
- c. 100  $\mu\text{m}$ -1 mm
- d. None

**501. H. Huxley and A-F Huxley gave the model of**

- a. Muscle contraction
- b. Bone movement
- c. Muscle structure
- d. All

**502. Aerodynamics deals with**

- a. Motion of liquid
- b. Motion of wings
- c. Motion of gases
- d. All

**503. Upward movement of wing is known as**

- a. Lift
- b. Thrust
- c. Upstroke
- d. Down stroke

**504. Wing Muscle frequency for Aedes spp. is**

- a. 1000 HZ
- b. 600 HZ
- c. 100 HZ
- d. 50 HZ

**505. The structure of ecdysone is similar to**

- a. Phenolic compound
- b. Cholesterol
- c. Chlorophyll
- d. Terpenes

**506. The example of lipid related Hormone is**

- a. Allatotropin
- b. Diuretic Hormone
- c. Juvenile Hormone
- d. All of above

**507. Tyrosine is an example of non-essential**

- a. Lipid
- b. Aminoacid
- c. Protein
- d. Hormone

**508. Corpora cardiaca produce**

- a. Juvenile Hormone
- b. Prothoracicotropic Hormone
- c. Ecdysone
- d. All

**509. Shedding of old skin is done by**

- a. Moulting hormone
- b. Eclosion hormone
- c. Bursicon
- d. All

**510. Bursicon perform the function of**

- a. Tanning
- b. Neurohemal organs
- c. Maturity
- d. Internal organs

**511. Corpora allata is a**

- a. Neurohemal organs
- b. Endocrine glands
- c. Neurosecretory cells
- d. Internal organs

**512. The concentration of Juvenile Hormone is high at**

- a. Egg stage
- b. Pupal stage
- c. Larval stage
- d. All

**513. Embryo having 3 layer during the development is known as**

- a. Gastrula
- b. Blastula
- c. Germ band
- d. None

**514. When embryo head end moves towards the posterior pole of egg, this movement is known as**

- a. Anatropsis
- b. Katatrepsis
- c. Posterior closure
- d. None

**515. The eggs of Dermatobia (Diptera) are stimulated to hatch by**

- a. Deoxygenated water
- b. Warmth
- c. Radiation
- d. None

**516. Maceration is the process of**

- a. Clearing
- b. Grinding
- c. Boiling
- d. None

**517. The most important tanning agent is**

- a. Sclerotin
- b. Tyrosine
- c. Phenole
- d. All

**518. Proventriculus perform the function of**

- a. Digestion
- b. Secretion
- c. Grinding
- d. Storing

**519. Gizzard has four mobile lips with spines on them, for staining in**

- a. Fleas
- b. Beetles
- c. Bees
- d. Whitefly

**520. Goblet cells of Mid gut in Lepidoptera accumulate**

- a. Metal and dyes
- b. Enzymes
- c. Food
- d. Vitamins

**521. The pH of mid gut is**

- a. 8
- b. 6
- c. 10
- d. 9

**522. D-amylase act on**

- a.  $\alpha$ -1,4-glycosidic bonds
- b. 1,6 D glucosid
- c. 1,2 D glucosidic linkage
- d. All of above

**523. Higher termites digest the cellulose with the help of**

- a. Protozoa
- b. Bacteria
- c. Fungus
- d. Cellulases

**524. Hemicellulases can hydrolyze the**

- a. Cellulose
- b. Hexosan only
- c. Pentosan
- d. b & c

**525. Pepsin acts only in**

- a. Neutral medium
- b. Basic medium
- c. Acidic medium
- d. All

**526. The excretory function of Malpighian tubules is observed by**

- a. Marcello Malpighi (1669)
- b. Herold (1816)
- c. Meckel (1820)
- d. All

**527. The excretory product which is less toxic and insoluble called**

- a. Ammonia
- b. Urea
- c. Uric acid
- d. b & c

**528. H:N. Ratio in uric acid is**

- a. 1:1
- b. 2:1
- c. 3:1
- d. None

**529. In mosquitoes, the anal lobe can absorb**

- a. Food
- b. Salts
- c. Heat
- d. All

**530. Muscles which are responsible for heart beat in insects are**

- a. Pulsating muscles
- b. Alary muscles
- c. Dorso-ventral muscles
- d. None

**531. In insects, oxygen is delivered by**

- a. Red blood cells
- b. White blood cells
- c. Tracheal system
- d. All

**532. Plasma of blood contains**

- a. 60% H<sub>2</sub>O
- b. 80% H<sub>2</sub>O
- c. 90% H<sub>2</sub>O
- d. 95% H<sub>2</sub>O

**533. The neuron that conduct signals away from the central nervous system is known as**

- a. Afferent neurons
- b. Efferent neurons
- c. Internuncial neuron
- d. None of these

**534. Antennal sensilla is an example**

- a. Chemoreceptors
- b. Machanoreceptors
- c. Photoreceptors
- d. None of these

**535. Repeatedly firing on mechanoreceptor as long as stimulus persists known as**

- a. Phasic response
- b. Quick response
- c. Tonic response
- d. All

**536. Pressure receptors give information about depth/height to**

- a. Terrestrial insects
- b. Subterranean insect
- c. Aquatic insects
- d. All

**537. Tympanal organs are present on the front tibia in**

- a. Cicadas
- b. Crickets
- c. Moths
- d. Grasshoppers

**538. Chemical substances in gaseous form are detected in insect by**

- a. Gustatory receptors
- b. Olfactory receptors
- c. Stretch receptors
- d. All

**539. The type of birth in which insect directly lays young one known as**

- a. Oviparity
- b. Viviparity
- c. Parthenogenesis
- d. None

**540. Pupae having appendages free and visible externally is present in**

- a. Butterflies
- b. Beetles
- c. Flies
- d. Moths

**541. Study of adverse effects of chemicals on living organisms**

- a. Drug science
- b. Toxicology
- c. Physiology
- d. None

**542. Any agent that is capable of producing a deleterious response in biological systems producing death**

- a. Poison
- b. Drug

c. Biochemical agent d. Toxin

**543. Toxicity of chemical depends on**

a. Time b. Concentration  
c. Route of administration d. All

**544. When the action of one chemical reduce the other chemical known as**

a. Antagonism b. Synergism  
c. Potentiation d. Additive effect

**545. Effects produced by the ingestion of caustic substances or of irritant material**

a. Local toxicity b. Systemic toxicity  
c. Immediate toxicity d. Delayed toxicity

**546. The time required to kill 50% test animal is**

a. LD<sub>50</sub> b. LT<sub>50</sub>  
c. LC<sub>50</sub> d. a & b

**547. Margin of safety**

a. LD<sub>1</sub>/ED<sub>99</sub> b. LD<sub>99</sub>/ED<sub>1</sub>  
c. LD<sub>50</sub>/ED<sub>50</sub> d. None

**548. Toxicity of insecticide by administration of single lethal dose for a short period of time is**

a. Acute b. Chronic  
c. Sub chronic d. None

**549. Acaricides are used to kill**

a. Algae b. Fungi  
c. Mites d. None

**550. Chemical used to kill birds**

a. Onicides b. Predicides  
c. Avicides d. Silricides

**551. Chemical used to kill fish**

a. Piscicide b. Predicides  
c. Siluicides d. Avicides

**552. Chemical used to destroy or inactive harmful micro-organisms**

- a. Desiccant
- b. Disinfectant
- c. Defoliants
- d. None

**553. Poisons cause unconsciousness in insects and are fat soluble**

- a. Narcotic poisons
- b. Nerve poisons
- c. Physical poison
- d. Miscellaneous

**554. Poisons inhibits the acetylcholinesterase resulting buildup of acetylcholine**

- a. Axonic poison
- b. Synaptic poison
- c. Nerve poison
- d. Muscle poisons

**555. Insecticide which block the insect spiracles are**

- a. Muscle poison
- b. Physical poisons
- c. Narcotic
- d. None

**556. Sodium arsenate is a**

- a. Inorganic
- b. Organic
- c. Element
- d. None

**557. Nereistoxin is a compound having origin**

- a. Plant
- b. Animal
- c. Natural organic
- d. None

**558. Rotenone is a compound having origin**

- a. Plant
- b. Animal
- c. Natural organic
- d. None

**559. Strobane belong to group**

- a. Organo chlorine
- b. Organophosphate
- c. Carbamate
- d. None

**560. Acephate belong to group**

- a. Organochlorine
- b. Organophosphate
- c. Carbamate
- d. None

**561. Aldicarb belong to group**

- a. Organochlorine
- b. Organophosphate
- c. Carbamate
- d. None

**562. Diafenthuron belongs to group**

- a. Organochlorine
- b. Thiourea
- c. Pyrethroids
- d. Carbamate

**563. Imidacloprid is a**

- a. Fumigante
- b. Nicotinyl insecticides
- c. Ropellent
- d. None

**564. Methyl bromide is a**

- a. Fumigant
- b. Repellent
- c. Attractant
- d. None

**565. Bifenthrin belongs to group**

- a. Pyrethroid
- b. Carbamate
- c. Thiourea
- d. None

**566. Dicofol is a**

- a. Insecticide
- b. Acaricides
- c. Rodenticide
- d. Fungicides

**567. Benzyl benzoate repel the**

- a. Ticks
- b. Mosquitoes
- c. Mites
- d. All

**568. Carbamates have same mode of action as**

- a. Organochlorine
- b. Organophosphate
- c. Pyrethroids
- d. None

**569. Reduction is metabolism of phase**

- a. I
- b. II
- c. I & II
- d. None

**570. Carboxylesterases is metabolism of class**

- a. I
- b. II
- c. I & II
- d. None

**571. Extent of toxicity depends on**

- a. Time of exposure
- b. Concentration
- c. Route of administration
- d. All

**572. Toxin is produced by**

- a. Living organisms
- b. Only plants
- c. Only microbes
- d. Only animals

**573. Toxin produced by microbes**

- a. Endotoxin
- b. Mycotoxin
- c. Alphatoxin
- d. Phytotoxin

**574. Toxin is injected by sting/bite is**

- a. Zootoxin
- b. Venom
- c. Bacterial toxin
- d. None

**575. The study of the insects that inhabit the flesh of dead bodies of humans and animals for purposes of law of toxicology is**

- a. Forensic entomology
- b. Chemical ecology
- c. Environmental entomology
- d. None

**576. Ethyl alcohol have LD<sub>50</sub> value (mg/kg)**

- a. 1
- b. 5
- c. 1,000
- d. 10,000

**577. The chemical is more toxic if LD<sub>50</sub> is**

- a. Low
- b. High
- c. Moderate
- d. None

**578. Nephrotoxic is chemical toxic to**

- a. Liver
- b. Kidney
- c. Blood
- d. Eyes

**579. Indoxacarb is active ingredient of**

- a. Tracer
- b. Emmamectin benzoate
- c. Referee
- d. Steward

**580. Repeated exposure to chemical for 1 month or less is**

- a. Sub-chronic
- b. Sub-acute
- c. Chronic
- d. Acute

**581. The compounds with ability to cause birth deformities**

- a. Carcinogenic
- b. Mutagenic
- c. Teratogenic
- d. None

**582. Have more half life**

- a. Pyrethroids
- b. Carbamates
- c. Organophosphate
- d. Organochlorine

**583. When two chemical control balance each other by producing opposite effect on the same physiological function is**

- a. Chemical antagonism
- b. Inactivation
- c. Functional antagonism
- d. None

**584. Which formulation has less active ingredient quantity**

- a. EC
- b. Sc
- c. Dusts
- d. WP

**585. Methyl Eugenol is**

- a. Attractant
- b. Repellent
- c. Insecticide
- d. Sex pheromone

**586. Chemical used in the treatment in moth and timber proofing against**

- a. Impreganting material
- b. Poisons bait
- c. Slow released insecticide
- d. None

**587. The minimal effective dose of any chemical that evopres a stated all or none response is called**

- a. TD
- b. ED
- c. LD
- d. None

**588. Ability to give maximum response of a chemical is**

- a. Potency
- b. Efficacy
- c. Concentration
- d. Effective dose

**589. Which of the following insects exhibit thigmotropism**

- a. Khapra beetle
- b. Fruit fly
- c. Citrus psylla
- d. Click beetles

**590. Kairomone have utility for**

- a. Emitter
- c. Both

- b. Receiver
- d. None

**591. The study of insects is called**

- a. Entomology
- c. Zoology

- b. Anthropology
- d. Pathology

**592. Any organism which harms or causes damage to man directly or indirectly is called**

- a. Pest
- c. Parasite

- b. Insect
- d. Agriculture Pest

**593. Insects belong to the class**

- a. Insecta
- c. Symplyla

- b. Pauropoda
- d. Crustacea

**594. The practice of dining one's own species**

- a. Cannabolism
- c. Diapause

- b. parasitism
- d. Aestivation

**595. Insects in which young ones pass through complex or complete metamorphosis are said to be:**

- a. Holometabola
- c. Hemimetabola

- b. Ametabola
- d. Hyper metamorphosis

**596. The young ones of holometabolus insects are called**

- a. Larvae
- c. Naiad

- b. Nymph
- d. Maggots

**597. Insects which develop their wings externally belong to the class**

- a. Exopterygota
- c. Apterygota

- b. Endopterygota
- d. None of them

**598. The resting stage of endopterygot insects is**

- a. Pupa
- c. Adult

- b. Larva
- d. Nymph

**599. The young ones of hemimetabola those are terrestrial in habitat are**

- a. Nymphs
- c. Larvae

- b. Naiads
- d. Pupae

**600. Larvae of beetles are known as**

- a. Grubs
- c. Imago

- b. Maggots
- d. Instars

**601. Young ones of fly are**

- a. Maggots
- c. Imago

- b. Grubs
- d. All above

**602. The form of insect after complete metamorphosis**

- a. Imago
- c. Stadium

- b. Puparium
- d. Pupa

- 603. The type of diapause which occur in winter**
- |                |                |
|----------------|----------------|
| a. Hibernation | b. Aestivation |
| c. Dormancy    | d. Starvation  |
- 604. Suffering caused in insect due to lack of food**
- |               |                |
|---------------|----------------|
| a. Starvation | b. Aestivation |
| c. Dormancy   | d. Diapause    |
- 605. Insects that feed on one type of food**
- |                |                 |
|----------------|-----------------|
| a. Monophagous | b. Oligophagous |
| c. Omnivorous  | d. Phytophagous |
- 606. Insects which feed other insects are to be known as**
- |                  |                |
|------------------|----------------|
| a. Entomophagous | b. Cannibalism |
| c. Parasitism    | d. Predatism   |
- 607. Aphids is an example of**
- |                 |              |
|-----------------|--------------|
| a. Viviparous   | b. Oviparous |
| c. Paedogenesis | d. All above |
- 608. Insects that active at night are**
- |                |                 |
|----------------|-----------------|
| a. Nocturnal   | b. Diurnal      |
| c. Crepuscular | d. None of them |
- 609. Insects which are active during morning or evening twilight**
- |                |             |
|----------------|-------------|
| a. Crepuscular | b. Diurnal  |
| c. Nocturnal   | d. Predator |
- 610. In insect ganglion is a part of**
- |                        |                       |
|------------------------|-----------------------|
| a. Nervous system      | b. Respiratory System |
| c. Reproductive System | d. Muscular system    |
- 611. Insects that found everywhere are**
- |                         |                      |
|-------------------------|----------------------|
| a. Cosmopolitan insects | b. Household insects |
| c. Stored grain insects | d. None of above     |
- 612. Male, female mosquitoes have antennae**
- |                       |                      |
|-----------------------|----------------------|
| a. Plumose, Pilose    | b. Aristase, Plumose |
| c. Pectinate, Plumose | d. Pectinate pilose  |
- 613. House flies antennae are**
- |             |            |
|-------------|------------|
| a. Aristate | b. Stylate |
| c. Ensiform | d. Capitae |
- 614. The dorsal sclerotized region of insect body is**
- |            |                  |
|------------|------------------|
| a. Tergum  | b. Pleuron       |
| c. Sternum | d. None of above |
- 615. The lateral sclerotized portion is**
- |            |              |
|------------|--------------|
| a. Pleuron | b. Tergum    |
| c. Sternum | d. All above |
- 616. The main body region of insects are**
- |                |              |
|----------------|--------------|
| a. Tagmosis    | b. Antecosta |
| c. Acrotergite | d. Symphyta  |

**617. Grasshopper and cricket have mouth parts**

- a. Biting chewing type
- b. Piercing sucking
- c. Chewing lapping
- d. Biting and sponging

**618. Costal margin of wing of insect is**

- a. Frontal margin
- b. Anal margin
- c. Outer margin
- d. Inner margin

**619. Campodeiform is type of**

- a. Larva
- b. Egg
- c. Naiad
- d. Nymph

**620. Type of pupae with appendages are free and not glued to the body is**

- a. Exarate
- b. Obtect
- c. Coarctate
- d. Vermiform

**621. Hind wings of true flies are modified into tiny knobbed structure**

- a. Halteres
- b. Pseudohaltere
- c. Filohaltere
- d. Membranous

**622. Beetles & weevils have fore wing very thick and hard**

- a. Elytra
- b. Hemelytra
- c. Strippy
- d. Filohaltere

**623. Dragonfly and damselfly have type of legs**

- a. Basket forming
- b. Fossorial
- c. Cursorial
- d. Netatorial

**624. Tentorium is**

- a. Endoskeleton of head
- b. Exoskeleton of head
- c. All above
- d. None of above

**625. Function of exo-cuticle is**

- a. Rigidity of body parts
- b. Impermeability of water
- c. Prevention
- d. Toughness

**626. Insect body divided into external grooves called as**

- a. Suture
- b. Sclerite
- c. Somites
- d. Acron

**627. Which hormone cause moulting**

- a. Ecdysone
- b. Ecdysis
- c. Exuvium
- d. Moulting

**628. What enzymes break protein**

- a. Proteases
- b.  $\text{CH}_2\text{O}$
- c. Lipases
- d. Amylase

**629. Type of reproduction in which young ones produced from unfertilized eggs**

- a. Parthenogenesis
- b. Viviparity
- c. Polyembryony
- d. Oviparity

**630. The hearing organ in grasshopper is**

- a. Tympanal organ
- b. Johastan organ
- c. Chorodontonal organ
- d. All of above

**631. Locomotion in response to odor**

- a. Stereokinesis
- b. Chemokinesis
- c. Taxis
- d. Kinesis

**632. Fast acting pheromones**

- a. Releasers
- c. Semio chemical

- b. Primers
- d. Allelo chemical

**633. Social behavior is present in**

- a. Termites
- c. Moths

- b. Butterflies
- d. Flies

**634. The ability of plant by which it is less damaged by insect**

- a. Tolerance
- c. Immunity

- b. Avoidance
- d. Resistance

**635. Complete resistance against adverse conditions is**

- a. Immunity
- c. Tolerance

- b. Resistance
- d. Avoidance

**636. The identical food of queen is a.**

- a. Royal jelly
- c. Honey

- b Water
- d. Nectar

**637. Lac is produced by insect**

- a. *Laccifer lacca*
- c. *Apis cerana*

- b. *Bombyx mori*
- d. *Apis dorsata*

**638. Commercial rearing of honey is**

- a. Apiculture
- c. Lac culture

- b. Sericulture
- d. All above

**639. Silk is produced by insect**

- a. *Bombyx mori*
- c. *Apis cerana*

- b. *Gryllus sp.*
- d. *Apis mellifera*

**640. Fire flies are**

- a. Beetles
- c. Fleas

- b. Flies
- d. Wasps

**641. The largest insect of the world is**

- a. Elephant beetle
- c. Locust

- b. Winged beetle
- d. Grasshopper

**642. Where the insects are abundant**

- a. Tropical region
- c. Temperate region

- b. Sub-tropical region
- d. None of the above

**643. Which insect cut the root of the plant**

- a. Mole Cricket
- c. Pyrilla

- b. Ground beetle
- d. Grylloblatid

**644. The rapid reappearance of the pest population in injurious number is**

- a. Pest resurgence
- c. Pest resistance

- b. Pest outbreak
- d. IPM

**645. The amount of pest induced injury level to the crop which will justify the cost of artificial control measure**

- a. Economic damage
- c. Economic injury level

- b. Economic threshold
- d. None of the above

**646. Proventriculus is a part of**

- a. Digestive system
- c. Respiratory System

- b. Reproductive System
- d. Nervous System

- 647. The family of desert locust is**  
a. Acrididae  
c. Tetrigidae  
b. Gryllidae  
d. Gryllotelpidae
- 648. Curclionidae is the family of**  
a. Weevils  
c. Flies  
b. Beetles  
d. Borers
- 649. Subimaginal moulting occur in**  
a. Mayflies  
c. Fireflies  
b. Stoneflies  
d. Scorpionflies
- 650. Secondary Male genitalia present in**  
a. Odonata  
c. Blatteria  
b. Plecoptera  
d. Mentodia
- 651. Anal fold in the wing developed for the first time in**  
a. Plecoptera  
c. Lepidoptera  
b. Orthoptera  
d. Hemiptera
- 652. Tegmina presents in**  
a. Orthoptera  
c. Homoptera  
b. Diptera  
d. Collembola
- 653. Telson tail present in**  
a. Protura  
c. Thysanura  
b. Diplura  
d. Strepsiptera
- 654. Six segmented abdomen present in**  
a. Collembola  
c. Dictyoptera  
b. Diplura  
d. Coleoptera
- 655. Mouth parts Asymmetrical in**  
a. Thysanoptera  
c. Mecoptera  
b. Neuroptera  
d. Hymenoptera
- 656. Division of labor present in**  
a. Honeybees  
c. Cockroaches  
b. Flies  
d. Lice
- 657. Sexual dimorphism occur in**  
a. Mango mealybug  
c. Human louse  
b. Grasshopper  
d. Cricket
- 658. When the immature ones capable to produce young ones called**  
a. Paedogenesis  
c. Anamorphism  
b. Parthenogenesis  
d. Oviparity
- 659. When all spiracles are functional in insect respiration called**  
a. Holopneustic  
c. Oligopneustic  
b. Apneustic  
d. Amphipneustic
- 660. Nodus and pterostigma present in the wing of**  
a. Odonates  
c. Ants  
b. Fire brates  
d. Stylopids
- 661. All members are parasitic in nature in the insect order**  
a. Strepsiptera  
c. Lepidoptera  
b. Hymenoptera  
d. Coleoptera

**662. Jugum in insect is a part of**

- a. Wing
- b. Leg
- c. Antenna
- d. Abdomen

**663. Hamuli on the wing present in**

- a. Hymenopterous insects
- b. Lepidopterous insects
- c. Dipterous insects
- d. Mecopterous insects

**664. Egg laying capability in insect is known as**

- a. Fecundity potential
- b. Reproductive potential
- c. Biological potential
- d. Natality

**665. Utilization of all the resources in the present area by an insect species community called**

- a. Niche
- b. Habitat
- c. Agro-eco-system
- d. Ecological race

**666. A living place of an insect population is known as**

- a. Habitat
- b. Environment
- c. Ecology
- d. Niche

**667. Branching of food chain into various directions**

- a. Food web
- b. Food links
- c. Trophic association
- d. Energy pyramid

**668. Halteres present in the insect order**

- a. Diptera
- b. Embioptera
- c. Hemiptera
- d. Mallophaga

**669. Cerci asymmetrical in**

- a. Web spinner
- b. Ear wig
- c. Grouse locust
- d. Thrips

**670. Binomial nomenclature introduced by**

- a. Linnaeus
- b. Fabricious
- c. Uvarov
- d. Kirby

**671. Ontogeny repeats phylogeny deals to**

- a. Biogenetic Law
- b. Darwin law
- c. Law of priority
- d. Law of segregation

**672. Systema Naturae is a publication of**

- a. Linnaeus
- b. Darwin
- c. Aristotle
- d. Lamarck

**673. Flacheri is a disease of**

- a. Silkworm
- b. Honeybees
- c. Grasshoppers
- d. Beetles

**674. American foul brood is a disease of**

- a. Honeybees
- b. Lac insects
- c. *Bombyx mori*
- d. *Embia spp*

**675. On the land mounds are formed by**

- a. Termite
- b. Ants
- c. Psocids
- d. Wasps

**676. Antennae are absent in**

- a. Telson tail
- b. Spring tail
- c. Collembolla
- d. Double tail

**677. Raptorial type of legs are found in**

- a. Praying mantis
- b. Dragonflies
- c. Crickets
- d. Flies

**678. Dead hearts in sugarcane is caused by**

- a. Borers
- b. Pyrilla
- c. Black Bug
- d. Mole cricket

**679. Bunchy top in sugarcane is found due to**

- a. Top borers
- b. Stem borers
- c. Root borers
- d. Gurdaspur borer

**680. Rossette flowers in cotton are found due to**

- a. Pink bollworm
- b. Spotted bollworm
- c. American bollworm
- d. Army worm

**681. Parasite of maize borer is**

- a. *Epipyrops*
- b. *Apanteles*
- c. *Cotesia*
- d. *Trichogramma*

**682. Aphid lion is called**

- a. *Chrysopa*
- b. Ladybird beetle
- c. Assassin bug
- d. Pirate bug

**683. Cornicles are presents is**

- a. Aphids
- b. Whiteflies
- c. Jassids
- d. Scale insects

**684. Acaricides are the chemicals used to kill**

- a. Mites
- b. Insects
- c. Scorpion
- d. Mice

**685. Myiasis is a disease caused by**

- a. Flies
- b. Mites
- c. Ticks
- d. Caterpillar

**686. Scabies is the problem caused by**

- a. Mites
- b. Ticks
- c. Flies
- d. Maggots

**687. Leishmaniasis is disease caused by**

- a. Sand flies
- b. Stoneflies
- c. House flies
- d. Horse flies

**688. Sleeping sickness is caused by**

- a. Tsetse flies
- b. Black flies
- c. Flash flies
- d. Face flies

**689. Dengue fever is transmitted by**

- a. Mosquito
- b. Flies
- c. Caterpillar
- d. Ants

**690. Epidemic Typhus is transmitted by**

- a. Human louse
- b. Chicken louse
- c. Mite
- d. Tick

691. *Trogoderma granarium* (Everts) belongs to family -----

- a. Dermestidae
- b. Bostrichidae
- c. Curculionidae
- d. Gelichidae

692. ----- normally attacks on upper layer of stored wheat

- a. Khapra beetle
- b. *Tribolium castaneum*
- c. Lesser grain borer
- d. Rice Weevil

693. Damage caused by only grub stage of the -----

- a. Red flour beetle
- b. Khapra beetle
- c. Saw toothed beetle
- d. Dhora beetle

694. *Sitophilus oryzae* belongs to family -----

- a. Gelichidae
- b. Curculionidae
- c. Tenebrionidae
- d. None of all

695. Reddish hair are present on the body of the larvae of -----

- a. *Rhyzopertha dominica*
- b. *Tribolium castaneum*
- c. *Sitotroga cerealella*
- d. *Trogoderma granarium*

696. ----- is found in sugarcane borers

- a. Phototropism
- b. Geotropism
- c. Thigmotropism
- d. None of all

697. Benzquinone is secreted by the dermal glands of -----

- a. *Rhyzopertha dominica*
- b. *Tribolium castaneum*
- c. *Sitotroga cerealella*
- d. *Trogoderma granarium*

698. Prothorax of *Oryzophilus surinamensis* L. has ----- toothed like projection along each side

- a. 9
- b. 5
- c. 6
- d. 3

699. *Oryzophilus surinamensis* L. overwinter as -----

- a. Adult
- b. Larvae
- c. Pupa
- d. Egg

700. Pectinate antennae are present in adult of -----

- a. Khapra beetle
- b. Red flour beetle
- c. Dhora beetle
- d. Lesser grain borer

701. *Sitotroga cerealella* is commonly known as

- a. Angoumois grain moth
- b. Dhora beetle
- c. Red flour beetle
- d. Rice weevil

702. *Corcyra cephalonica* is a serious pest of stored -----

- a. Wheat
- b. Rice
- c. Gram
- d. Oat

703. Optimum temperature require for the best growth of stored insect pests is -----

- a. 36-40 °C
- b. 28-32 °C
- c. 20-25 °C
- d. 16-20 °C

704. Before storage, moisture contents of the commodity should be -----

- a. 15-20%
- b. 20%
- c. 10%
- d. 14%

705. ----- attack the whole grains both before and after harvest.

- a. Secondary Pests
- b. Primary Pest
- c. Tertiary Pest
- d. None of All

**706. ----- attack the damaged or broken grain or flour**

- a. Secondary Pests
- b. Primary Pest
- c. Tertiary Pest
- d. None of All

**707. ----- is a period in the life cycle when metabolism is reduced to a minimum due to unfavorable conditions.**

- a. Diapause
- b. Thigmotropism
- c. Resistance
- d. Metamorphosis

**708. At----- moisture contents the rates of development of stored grain insect populations are slow**

- a. High
- b. Optimum
- c. Low
- d. All of them

**709. Family of Indian meal moth is -----**

- a. Pyralidae
- b. Gelichidae
- c. Dermestidae
- d. None of all

**710. Pygidium is not covered by the elytra of -----**

- a. Khapra
- b. Red flour beetle
- c. Dhora
- d. None of all

**711. Eggs of -----are used for the rearing of various biological control agents**

- a. Indian meal moth
- b. Dhora
- c. Angoumois grain moth
- d. Rice Moth

**712. -----diapause is only expressed when conditions are unfavorable**

- a. Obligate
- b. Facultative
- c. Temporary
- d. None of all

**713. Unavoidable diapause is -----**

- a. Facultative
- b. Obligate
- c. Temporary
- d. All of them

**714. If there is more moisture contents in the stored commodity, -----will grow on it**

- a. Fungi
- b. Nematodes
- c. Algae
- d. Bacteria

**715. Adult of -----have well developed rostrum**

- a. *Callosbruchus chinensis*
- b. *Tribolium castaneum*
- c. *Sitophilus oryzae*
- d. *Trogoderma granarium*

**716. Maximum of stored grain insect pests belong to order -----**

- a. Homoptera
- b. Coleoptera
- c. Diptera
- d. Lepidoptera

**717. Irregular wholes present in the damaged grains is the identification mark of the damage of**

- a. Khapra beetle
- b. Lesser grain borer
- c. Rice weevil
- d. Angoumois grain moth

**718. -----gas is produced from agtoxin® tablets**

- a. Ethylene
- b. Methane
- c. Phosphine
- d. None of all

**719. Deltamethrin is a -----**

- a. Grain fumigant
- b. Grain Protectant
- c. Repellent
- d. All of them

**720. Recommended dose of deltamethrin to be applied in a storage structure is**

- a. 50 L per 100 L of water
- b. 1 L per 100 L of water
- c. 5 L per 50 L of water
- d. 10 L. per 100 L of water

**721. Recommended dose of Aluminum phosphide to be applied per tone is**

a. 10 tablets

b. 2-3 tablets

c. 5 tablets

e. 20 tablets

**722. Bostrichidae is the family of**

- a. Lesser grain borer
- b. Red flour beetle
- c. Rice Weevil
- d. Angoumois grain moth

**723. Azadirachtin is found in**

- a. Motia
- b. Citrus
- c. Neem
- d. Sweet flag

**724. Botanical name of Sweet Flag is**

- a. *Acorus calamus*
- b. *Azadirachta indica*
- c. *Mangifera indica*
- d. None of all

**725. A secondary pest is a**

- a. Khapra beetle
- b. Red Flour Beetle
- c. Rice Weevil
- d. Lesser Grain Weevil

**726. The outer most layer of pericarp or fruit coat is -----**

- a. Endodermis
- b. Epidermis
- c. Mesodermis
- d. None of all

**727. Method of Expressing moisture in grain:**

- a. Wet Weight basis
- b. Dry weight basis
- c. Both a and b
- d. None of all

**728. A high polymer with non-identical repeating units of amino acids:**

- a. Carbohydrates
- b. Proteins
- c. Lipids
- d. Vitamins

**729. A curve describing the equilibrium relationship of sorbed water and vapor pressure (or relative humidity) at a given temperature is**

- a. Isotherm
- b. Parabola
- c. Both a. and b.
- d. None of All

**730. The power of insects to reproduce is**

- a. Diapause
- b. Fecundity
- c. Nataly
- d. None of all

**731. In insects, the organ involved in fertilization to receive & store the sperms after copulation**

- a. Accessory gland
- b. Spermatheca
- c. Oviduct
- d. Pedicel

**732. Formula of Phosphine is**

- a. PH<sub>4</sub>
- b. PH<sub>3</sub>
- c. PH<sub>2</sub>
- d. None of all

**733. Concentration of phosphine to be maintained in a storage structure:**

- a. 600 ppm
- b. 800 ppm
- c. 100 ppm
- d. 200 ppm

**734. Plant characteristics that lead insects away from a particular host:**

- a. Preference
- b. Non preference
- c. Antibiotics
- d. None of all

**735. Antixenosis is a ----- word means against or expelling guest**

- a. Greek
- b. Japanese
- c. Italian
- d. French

**736. Semiochemicals which promote communication between members of the same species:**

- a. Allelochemicals
- b. Kairomones
- c. Pheromones
- d. None of all

**737. Defensive chemicals producing negative responses in insects are**

- a. Pheromones
- b. Allomones
- c. Kairomones
- d. Allelochemicals

**738. ----- are advantageous to an insect, promoting host finding, oviposition and feeding**

- a. Pheromones
- b. Allomones
- c. Allelochemicals
- d. Kairomones

**739. Type of non preference present in spotted cucumber beetle is**

- a. Allelochemical nonpreference
- b. Morphological nonpreference
- c. Both a. and b.
- d. None of all

**740. Factors involved in antibiosis are related to:**

- a. Plants
- b. Insects
- c. Both plants and insects
- d. All of them

**741. DIMBOA, a cyclic hydroxamic acid is an allelochemic associated with antibiosis is found in**

- a. Cotton
- b. Wheat
- c. Corn
- d. Sugarcane

**742. Gossypols are present in**

- a. Wheat
- b. Cotton
- c. Maize
- d. None of all

**743. Larry P. Pedigo is author of famous book**

- a. Introductory Entomology
- b. Applied Entomology
- c. Entomology and Pest Management
- d. None of All

**744. Lack of insect infestation, or injury to the host plant because of transitory circumstances such as incomplete infestation is referred as**

- a. Host Evasion
- b. Escape
- c. Induced Resistance
- d. None of all

**745. Under some circumstances a host may pass through the most susceptible stage quickly or at a time when insect numbers are reduced. Such type of psuedoresistance is known as:**

- a. Escape
- b. Host Evasion
- c. Susceptibility
- d. All of them

**746. The term used for temporary increased resistance resulting from some condition of plant or environment is known as:**

- a. Induced Resistance
- b. Escape
- c. Host evasion
- d. None of all

**747. A variety which a specific insect never consume or injure under any known condition is a variety**

- a. Resistant
- b. Immune
- c. Susceptible
- d. Highly resistant

**748. Level of resistance which cause a variety to show less damage or infestation by an insect than the average for the crop under consideration is:**

- a. High Level of resistance
- b. Low level of resistance
- c. Moderate Resistance
- d. None of all

**749. A variety which shows average or more than average damage by an insect is a variety.**

- a. Immune
- b. Susceptible
- c. Resistant
- d. None of all

**750. The relative amount of heritable qualities possessed by the plant which influence**

**the ultimate degree of damage done by the insect is known as**

- a. Immunity
- b. Resistance
- c. Susceptibility
- d. None of All

**751. --is a basis of resistance in which the plant shows an ability to grow and reproduce itself or to repair injury to a marked degree in spite of supporting a population approximately equal to that damaging a susceptible host.**

- a. Tolerance
- b. Preference
- c. Nonpreference
- d. Resistance

**752. Death of young immatures, reduced growth rate, shortened adult life span etc. are the symptoms of insect affected by**

- a. Antibiosis
- b. Tolerance
- c. Non preference
- d. All of them

**753. Phenolic compounds produced by plants when they become diseased or are attacked by insects:**

- a. Phytoalexins
- b. Semiochemicals
- c. Allomones
- d. Kairomones

**754. The resistance which depends on environmental conditions is**

- a. Host Evasion
- b. Enviromental resistance
- c. Morphological resistance
- d. None of all

**755. Different populations of an insect species that vary in their virulence to a cultivar are referred to as:**

- a. Pathotype
- b. Biotype
- c. Paratype
- d. All of them

**756. A gene which allows a pest species to overcome resistance and once more attack a plant is**

- a. Virulent gene
- b. Resistant gene
- c. Susceptible gene
- d. All of them

**757. ----- recognize two types of resistance vertical and horizontal resistance.**

- a. J.E. Van der Plank
- b. Pedigo
- c. Atwal
- d. None of all

**758. The type of resistance which describes cultivars that express resistance against a broad range of genotypes of insects is**

- a. Vertical resistance
- b. Horizontal resistance
- c. Morphological resistance
- d. None of all

**759. The type of resistance which describes cultivars that express resistance against a one or a few genotypes of insects is**

- a. Vertical resistance
- b. Horizontal resistance
- c. Morphological resistance
- d. None of all

**760. Oligogenic resistance is also called -----**

- a. Major gene resistance
- b. Minor gene resistance
- c. Both (a and b)
- d. None of all

**761. The resistance which is conferred by one or only a few gene is**

- a. Polygenic resistance
- b. Oligogenic resistance
- c. Both (a and b)
- d. None of all

**762. Polygenic resistance is also called -----**

- a. Major gene resistance
- b. Minor gene resistance
- c. Both (a and b)
- d. None of all

**763. The resistance which is conferred by many genes, each contributing to the resistance effect is**

- a. Polygenic resistance  
c. Both (a and b)
- b. Oligogenic resistance  
d. None of all

**764. Resistance which is conferred by mutable substances in cell cytoplasm is**

- a. Oligogenic resistance  
c. Cytoplasmic resistance
- b. Polygenic  
d. All of them

**765. Cytoplasmic inheritance is due to the cytoplasm of the zygote comes from the ----**

- a. Sperms  
c. Both (a and b)
- b. Ovum  
d. None of All

**766. Any technique that utilizes living organisms, or substances from those organisms to make or modify a product to improve plants or animals or to develop microorganisms for specific uses is known as**

- a. Biotechnology  
c. Both a and b
- b. Molecular technology  
d. None of all

**767. The dose of a toxicant that kill 50 percent of the tested organisms is known as**

- a. LC<sub>50</sub>  
c. LT<sub>50</sub>
- b. LD<sub>50</sub>  
d. None of All

**768. Economic threshold level of insect pest in IPM of stored grains is**

- a. 5  
c. 4
- b. 0  
d. All of them

**769. *Callosobruchus chinensis* L. is the zoological name of :**

- a. Gram Dhora  
c. Saw toothe beetle
- b. Moong Dhora  
d. None of all

**770. *Oryzophilus surinamensis* L. belongs to family:**

- a. Bruchidae  
c. Curculionidae
- b. Silvanidae  
d. Tenebrionidae

**771. Rodents damage to stored food is of**

- a. Three fold  
c. Seven fold
- b. Five fold  
d. Two fold

**772. Life span of rodents is**

- a. 4-5 years  
c. 6-7 years
- b. 1-2 years  
d. None of all

**773. Breeding season in rodents is -----**

- a. Jan-April  
c. Through out the year
- b. May- August  
d. Septemer-December

**774. Warfarin is an**

- a. Anticoagulant  
c. Chronic poison
- b. Acute Poison  
d. None of all

**775. *Rattus meltada* is**

- a. Soft furred field rat  
c. House rat
- b. Indian Gerbil  
d. Norway Rat

**776. *Lepisma sacharina* is the zoological name of**

- a. Silverfish  
c. House cricket
- b. Firebrat  
d. None of all

**777. Adult of silverfish has ----- caudal filaments.**

- a. 5  
c. 3
- b. 7  
d. 4

**778. ----- feeds on glue and starchy materials with its chewing mouthparts.**

- a. Cockroach
- b. Mosquito
- c. crickets
- d. Silverfish

**779. House cricket belong to family-----**

- a. Gryllidae
- b. Lepismatidae
- c. Blattidae
- d. None of all

**780. American cockroach is known as -----**

- a. *Periplanata Americana*
- b. *Acheta domestica*
- c. *Lepisma sacharina*
- d. None of all

**781. Soldier caste is present in**

- a. Honey bee
- b. Termites
- c. House fly
- d. None of all

**782. *Psocus lineatus* is**

- a. Bird louse
- b. Book louse
- c. Mammal louse
- d. None of all

**783. Liposcelidae is the family of -----**

- a. Bird louse
- b. Book louse
- c. Mammal louse
- d. None of all

**784. There are ----- nymphal instars in Book louse**

- a. 2
- b. 7
- c. 5
- d. 3

**785. Carpet beetle belongs to family:**

- a. Dermestidae
- b. Cimicidae
- c. Pediculidae
- d. None of all

**786. *Lyctus africanus* is the zoological name of**

- a. Carpet beetle
- b. Powder Post Beetle
- c. Bed Bug
- d. Human Louse

**787. Human flea belongs to order**

- a. Siphonaptera
- b. Coleoptera
- c. Diptera
- d. None of all

**788. *Aspergillus flavipus* produces -----**

- a. Sterigmatocystin
- b. Aflatoxin
- c. Ochratoxin
- d. None of all

**789. A type of apparent host plant resistance in which a particular plant condition or environmental state makes a plant more resistant to pests than under other circumstances.**

- a. Induced resistance
- b. True resistance
- c. Susceptibility
- d. None of all

**790. Asexual life cycle of plasmodium is called**

- a. Schizogony
- b. Sporogony
- c. Both a and b
- d. None of all

**791. Erythrocytic cycle of plasmodium occurs inside the**

- a. White Blood Cell
- b. Red Blood Cell
- c. Platelets
- d. None of all

**792. *Musca domestica*'s larvae are known as**

- a. Grubs
- b. Maggots
- c. Caterpillars
- d. All of them

**793. *Tinea pellionella* is commonly known as**

- a. Cloth Moth
- b. Carpet Moth
- c. House fly
- d. Bed Bug

**794. Ants belong to family:**

- a. Formicidae
- b. Dermestidae
- c. Antidae
- d. None of all

**795. Sperms enters the egg through an opening in the egg covering called as**

- a. Micropyle
- b. Hypocotile
- c. Endoderm
- d. None of all

**796. Three layered embryo is called -----**

- a. Blastula
- b. Gastrula
- c. Morula
- d. All of them

**797. In parasitic Hymenoptera, more than one embryo are formed through asexual division. The process is know as**

- a. Polyendry
- b. Polyembryony
- c. Polyploidy
- d. None of them

**798. The act of the larvae leaving the egg is called -----**

- a. Eclosion
- b. Enclosion
- c. Ecdyson
- d. None of all

**799. Juvine Hormone is produced by glands accessory to brain known as**

- a. Corpora cardiaca
- b. Corpora allata
- b. Prothoracic gland
- d. None of all

**800. The ----- cycle refers to a single generation each year**

- a. Univoltine
- b. only voltine
- c. Monovoltine
- d. None of all

**801. The orientation of head where the mouthparts are in a continuous series with legs**

- a. Prognathous
- b. Hypognathous
- c. Opisthognathous
- d. None of above

**802. The orientation of head where the mouthparts are projected forward along the horizontal axis of body**

- a. Prognathous
- b. Hypognathous
- c. Opisthognathous
- d. Opisthosynchronous

**803. The orientation of head where the mouthparts are projected backward**

- a. Prognathous
- b. Opisthosynchronous
- c. Hypognathous
- d. None of above

**804. Groove making the line of fusion b/w distinct plates of the head capsule**

- a. Sulcus
- b. Suture
- c. Furca
- d. Ostia

**805. A ridge giving strength against the strain imposed on the head capsule**

- a. Sulcus
- b. Furca
- c. Suture
- d. None of above

**806. Internal skelton of head for the attachment of Muscle**

- a. Tentorial pits
- b. Furca
- c. Epiproct
- d. Suture

**807. The roots of the tentorial arms which appear as depressions**

- a. Tentorium
- b. Tentorium pits
- c. Funca
- d. Suture

**808. Just after harvesting the silkworm cocoon having living pupa**

- a. Blue cocoon
- b. White cocoon
- c. Green cocoon
- d. Yellow cocoon

**809. The phenomenon where the pest is repeatedly parasitised by the same species of parasite**

- a. Super parasitism
- b. Hyper parasitism
- c. Multi parasitism
- d. None of above

**810. The phenomenon where a pest is parasitized by another parasite**

- a. Hyper parasitism
- b. Multi parasitism
- c. Super parasitism
- d. None of above

**811. Leaving the pest below the Economic threshold level for survival of natural enemies during insecticidal application**

- a. Terminal residue
- b. Residue
- c. Pest residue
- d. None of above

**812. The density of pest at which control measure should be applied to prevent it from reaching the Economic injury level**

- a. Economic threshold level
- b. General equilibrium level
- c. Toxicity level
- d. None of above

**813. The average population density of an insect population over a long period of time.**

- a. Toxicity level
- b. Economic threshold level
- c. Economic injury level
- d. None of above

**814. The Muscle which are directly associated with the wing but more the wings as a result of distortion which they produce in the shape of thorax**

- a. Direct Muscle
- b. Control Muscle
- c. Depress Muscles
- d. Indirect Muscle

**815. The 11<sup>th</sup> abdominal segment is often represented by a dorsal triangular or shield shaped Fergal plate**

- a. Epiproct
- b. Apolysis
- c. Suture
- d. Sulcus

**816. The outerlayer of insect body comprising epidermis and cutie**

- a. Ecdysis
- b. Integument
- c. Apolysis
- d. Hydrolysis

**817. Separation of old cuticle from underlying epidermis**

- a. Hydrolysis
- b. Ecdysis
- c. Apolysis
- d. None of above

**818. The shedding of remnants of the old cuticle**

- a. Endocytosis
- b. Apolysis
- c. Diastasis
- d. Ecdysis

**819. Endosulfan Insecticide belongs to the group**

- a. Phenolic
- b. Organophosphate
- c. Carbamate
- d. Chlorinated hydrocarbons

**820. Aldicarb belongs to the group.**

- a. Phenolic
- b. Organophosphate
- c. Carbamate
- d. Chlorinated hydrocarbon

**821. Poisoning symptoms of parathian.**

- a. Inactiveness
- b. Restlessness
- c. Fanning movement
- d. Jitters

**822. Poisoning symptoms of Rotenone.**

- a. Inactiveness
- b. Restlessness
- c. Fanning movement
- d. Jitters

**823. Poisoning symptoms of BHC insecticides.**

- a. Inactiveness
- b. Restlessness
- c. Fanning movement
- d. Jitters

**824. Poisoning symptoms of DDT insecticide**

- a. Inactiveness
- b. Restlessness
- c. Fanning movement
- d. Jitters

**825. Site of action of organophosphate insecticide**

- a. Post synaptic membrane
- b. Axonic membrane
- c. Synaptic junction
- d. Pre synaptic membrane

**826. Site of action of Nicotine insecticide**

- a. Post synaptic membrane
- b. Axonic membrane
- c. Post synaptic membrane
- d. Pre synaptic membrane

**827. Site of action of cyclodines insecticide**

- a. Post synaptic membrane
- b. Axonic membrane
- c. Synaptic junction
- d. Pre synaptic membrane

**828. Common name of the *Chilo sacchariphagous***

- a. Internode bores
- b. Gurdaspur bores
- c. Root borer
- d. Top borer

**829. Nature of action of Phostoxin insecticides**

- a. Chitin inhibitor
- b. Fumigant
- c. Contact
- d. Systemic

**830. Nature of action of Diflubenzuron insecticide**

- a. Chitin inhibitor
- b. Fumigant
- c. Contact
- d. Systemic

**831. Nature of action of Chlorthion insecticide.**

- a. Chitin inhibitor
- b. Fumigant
- c. Contact
- d. Systemic

**832. Nature of action of Thiodemeton insecticide**

- a. Chitin inhibitor
- b. Fumigant
- c. Contact
- d. Systemic

**833. Mechanoreceptors gives response**

- a. Light
- b. Humidity
- c. Body movements
- d. Pressure

**834. In mantids the pincers are formed by apposition of tibia and \_\_\_\_\_ to catch hold the prey**

- a. Tibia
- b. Coxa
- c. Tarsus
- d. Femur

**835. The peritrophic membrane is absent in Hemiptera and adult**

- a. Lepidoptera
- b. Coleoptra
- c. Hymenoptera
- d. Diptera

**836. The \_\_\_\_\_ are the opening in the wall of the heart**

- a. Femur
- b. Tibia
- c. Ostia
- d. Coxa

**837. In nymph/larvae maximum sclerotization is found in**

- a. Maxilla
- b. Labrum
- c. Labium
- d. Mandible

**838. Maximum sclerotization is found in \_\_\_\_\_ of adult insect.**

- a. Mesonsternum
- b. Metanotum
- c. Pronotum
- d. None of above

**839. The \_\_\_\_\_ of caterpillars are hollow, cylindrical outgrowth of the body wall the lumen of which is continuous with haemocoel.**

- a. Hypopharynx
- b. Thorax
- c. Abdomen
- d. Proleg

**840. The Johnston's organ is situated in the \_\_\_\_\_ segment of the antenna**

- a. First
- b. Second
- c. Third
- d. Fourth

**841. Most of insects excrete 80 to 90 % of their nitrogen waste in the form of**

- a. Uric acid
- b. Ammonia
- c. Urea
- d. None of above

**842. Insects living in fresh water or extremely moist environment excrete their nitrogen waste in the form of**

- a. Nitric Acid
- b. Ammonia
- c. Nitrogen
- d. Uric acid

**843. Sclerotization is a process by which the cuticle becomes**

- a. Soft
- b. Dark
- c. Hard
- d. None of above

**844. Melanization is a process by which the cuticle becomes**

- a. Black & White
- b. Hard
- c. Soft
- d. Dark

**845. Normally nerve axons have a resting potential of about**

- a. - 60 mv
- b. - 65 mv
- c. - 75 mv
- d. -70 mv

**846. Damage symptoms of the *Bisettia steniellus***

- a. Bunchy top
- b. Dead hearts pulled easily
- c. Spiral galleries
- d. Dead hearts can not be pulled easily

**847. Damage symptoms of the *Scirpophaga nivella***

- a. Bunchy top
- b. Dead hearts pulled easily
- c. Spiral galleries
- d. Dead hearts can not be pulled easily

**848. Damage symptoms of the *Chilo infuscatellus***

- a. Bunchy top
- b. Dead hearts pulled easily
- c. Spiral galleries
- d. Dead hearts can not be pulled easily

**849. Causal organism of the maggot disease**

- a. Virus
- b. *Bacillus thuringiensis*
- c. *Nosema bombycis*
- d. *Trichlyga sorbillans*

**850. Causal organism of the Bacterial intoxication**

- a. Virus
- b. *Bacillus thuringiensis*
- c. *Nosema bombycis*
- d. *Trichlyga sorbillans*

**851. Host plant of the Mulberry silkworm**

- a. *Ricinus communis*
- b. *Morus* sp.
- c. *Terminalia arjuna*
- d. *Machilus bombycina*

**852. Host of the Entomophthora muscae**

- a. Lepidopterous caterpillars
- b. Housefly
- c. Grasshoppers
- d. Aphid

**853. Serratia marcescens belongs to the group**

- a. Fungi
- b. Bacteria
- c. Virus
- d. Nematode

**854. NPV pathogen belongs to the group**

- a. Fungi
- b. Bacteria
- c. Virus
- d. Nematode

**855. Neoplectana pathogen belongs to the group**

- a. Fungi
- b. Bacteria
- c. Virus
- d. Nematode

**856. Menochilus belongs to the family**

- a. Coccinellidae
- b. Pentatomidae
- c. Reduviidae
- d. Chrysopidae

**857. Chysoperla predator belongs to the family**

- a. Coccinellidae
- b. Pentatomidae
- c. Reduviidae
- d. Chrysopide

**858. Antennae of the moth**

- a. Aristate
- b. Pectinate
- c. Serrate
- d. Monilform

**859. Antennae of the Thrips**

- a. Aristate
- b. Pectinate
- c. Serrate
- d. Monilform

**860. Antennae of the Housefly**

- a. Aristate
- b. Pectinate
- c. Serrate
- d. Monilform

**861. Bi-pectinate antennae is found in**

- a. Mosquito
- b. Silkworm
- c. Butterfly
- d. Honeybee

**862. Plumose antennae is found in**

- a. Mosquito
- b. Silkworm
- c. Butterfly
- d. Honeybee

**863. Genuiculate antennae is found in**

- a. Mosquito
- b. Silkworm
- c. Butterfly
- d. Honeybee

**864. Clavate antennae is found in**

- a. Mosquito
- b. Silkworm
- c. Butterfly
- d. Honeybee

**865. Thrips tabaci have mouth parts**

- a. Biting and chewing
- b. Piercing and sucking
- c. Rasping and Sucking
- d. Sponging

**866. Musca domestica have mouthparts**

- a. Biting and chewing
- b. Piercing and sucking
- c. Rasping and Sucking
- d. Sponging

**867. What type of legs found in mantid**

- a. Jumping
- b. Grooming
- c. Grasping
- d. Digging

**868. What type of legs found in Honeybee**

- a. Jumping
- b. Grooming
- c. Grasping
- d. Digging

**869. Pro-preoreceptros give response**

- a. Light
- b. Humidity
- c. Body movement
- d. Pressure

**870. Hygroreceptors give response a.**

- a. Light
- b. Humidity
- c. Body movement
- d. Pressure

**871. Photoreceptors give response a.**

- a. Light
- b. Humidity
- c. Body movement
- d. Pressure

**872. If the description of new species is based on single specimen of type series.**

- a. Holotype
- b. Paratype
- c. Syntype
- d. Hetrotype

**873. All the specimen of the series, when there id no holotype**

- a. Holotype
- b. Paratype
- c. Syntype
- d. Hetrotype

**874. After the holotypc is labeled , Each specimen of the remaining of the types**

- a. Paratype
- b. Holotype
- c. Syntpe
- d. Hetrotype

**875. Phytophayous insects feeding on plants of one or few closely related species with in a genus**

- a. Oligophayous
- b. Moniphagous
- c. Polyphayous
- d. Diphagous

**876. Phytophaus insects feeding on plants of several genera with in a family**

- a. Monophayous
- b. Polyphagous
- c. Oligophagous
- d. Diphagous

**877. Biodiversity of insects depends upon the \_\_\_\_\_ conditions of the environment.**

- a. Geographical & Physical.
- b. Chemical & Biological
- c. None of above.
- d. All of above.

**878. Adult insects are categorized with the response of light are foll.**

- a. The diurnal species.
- b. The nocturnal species
- c. The crepuscular species
- d. All of above.

**879. The sweep net consists of a nylon cloth with a mouth about \_\_\_\_\_ cm in diameter.**

- a. 20 cm.
- b. 30 cm
- c. 40 cm
- d. None of above.

**880. Pit-fall tray contains a container such as a \_\_\_\_\_ .**

- a. Jar.
- b. Tube
- c. Funnel
- d. None

**881. In Berles's funnel, the top of the funnel extends into a jar of \_\_\_\_\_ % alcohol.**

- a. 60 %
- b. 70%
- c. 80%
- d. None

**882. The adults of Aphidoidea are preserved in \_\_\_\_\_ tubes.**

- a. 75% alcohol.
- b. 85% alcohol.
- c. 95% alcohol.
- d. None

**883. The class insecta is divided into subclasses.**

- a. 2.
- b. 3
- c. 4
- d. None

**884. The subclass Ametabola is divided into \_\_\_\_\_ orders.**

- a. 2.
- b. 3
- c. 4
- d. None

**885. The family lepismatidae belongs to the suborder \_\_\_\_\_ .**

- a. Microcoryphia.
- b. Zygentoma
- c. Dicellurata.
- d. None

**886. The *Japyx* sp. belongs to the order**

- a. Thysanura
- b. Protura
- c. Diplura
- d. None

**887. Acerentomidae is the important family of order**

- a. Thysanura
- b. Diplura
- c. Protura
- d. None.

**888. The process of increasing 3 abdominal segments during the post embryonic development is called**

- a. Metamorphosis
- b. Anamorphosis
- c. Mitosis
- d. None

**889. In Protura, first pair of \_\_\_\_\_ perform the function of antennae.**

- a. Wings
- b. Legs.
- c. Abdomen
- d. None

**890. In Collembola, abdomen is \_\_\_\_\_ segmented.**

- a. 5
- b. 6
- c. 7
- d. None

**891. In Collembola, hook like structure is present on abdominal segment 3 that is known as.**

- a. Collophore
- b. Retinaculum
- c. Furcula
- d. None

**892. The family Neelidae belongs to the sub-order \_\_\_\_\_ of the order Collembola.**

- a. Arthropleona
- b. Symphyleona
- c. Filipalpia
- d. None

**893. In \_\_\_\_\_ the mouthparts are of chewing type but vestigial.**

- a. House fly
- b. Butterfly
- c. Mayfly
- d. None

**894. In Ephemeroptera the sub-imaginal moulting is**

- a. Present
- b. Absent
- c. Present or absent
- d. None.

**895. Ephemeris means \_\_\_\_\_**

- a. Short lived
- b. Long lived
- c. Short or long lived
- d. None.

**896. The nymphs of \_\_\_\_\_ are aquatic and called naiads.**

- a. Dragonflies
- b. Damselflies
- c. Mayflies
- d. None

**897. The family caenidae belongs to the super family**

- a. Ephemeroidea
- b. Caenoidea
- c. Heptagenioidea
- d. None

**898. The family \_\_\_\_\_ belongs to the super family**

**Baetoidea.**

- a. Ephemerellidae
- b. Ephemeridae
- c. Heptageniidae.
- d. None

**899. *Odontos* means**

- a. Bristle
- b. Hook
- c. Tooth
- d. None

**900. The members of Odonata are commonly called \_\_\_\_\_**

- a. Mayflies and damselflies.
- b. Mayflies and dragonflies.
- c. Dragonflies and damselflies
- d. None.

**901. An elongate nodus is present on \_\_\_\_\_ in Odonata.**

- a. Wings.
- b. Legs.
- c. Abdomen.
- d. None.

**902. Dragonflies belong to the suborder \_\_\_\_\_**

- a. Anisoptera
- b. Zygoptera
- c. Anisozygoptera
- d. None.

**903. *Pantala* spp. belong to the family \_\_\_\_\_**

- a. Libellulidae
- b. Aeshnidae
- c. Gomphidae
- d. None

**904. \_\_\_\_\_ are the families of suborder Zygoptera.**

- a. Gomphidae and Aeshnidae
- b. Libellulidae and Cordulasteridae
- c. Coenagrionidae and Agrionidae
- d. None.

**905. Damselflies belong to the suborder**

- a. Anisoptera
- b. Zygoptera
- c. Anisozygoptera
- d. None.

**906. In plecoptera, the anal lobe of the hind wing is folded on the wing during**

- a. Flight
- b. Rest
- c. Flight & rest
- d. None

**907. Plecoptera is divided into \_\_\_\_\_ sub-orders**

- a. 2
- b. 3
- c. 4
- d. None

**908. In \_\_\_\_\_ the maxillary palpi are seta like.**

- a. *Perla* sp.
- b. *Anax* sp.
- c. *Podorous* sp.
- d. None

**909. Locusts belong to the order**

- a. Plecoptera
- b. Orthoptera
- c. Embioptera
- d. None

**910. In orthoptera, speialized \_\_\_\_\_ organs are present.**

- a. Auditory
- b. Stridulatory
- c. Auditory and stridulatory
- d. None

**911. Orthoptera is divided into suborder.**

- a. 2
- b. 3
- c. 4
- d. None

**912. Suborder ensifera belongs to the order**

- a. Plecoptera
- b. Orthoptera
- c. Homoptera
- d. None

**913. Mole cricket belongs to the family \_\_\_\_\_**

- a. Gryllidae
- b. Gryllotalpidae
- c. Tridactylidae
- d. Trigonidiidae

**914. Acrididae belongs to the suborder**

- a. Ensifera
- b. Caelifera
- c. Blattaria.
- d. None.

**915. Ak grasshopper belongs to the family**

- a. Acrididae
- b. Tetrigidae
- c. Pamphigidae
- d. Pyrogomorphidae.

**916. Phasma means \_\_\_\_\_**

- a. A host
- b. A ghost
- c. A host and ghost
- d. None.

**917. Leaf insects and stick insects belong to the order**

- a. Grylloblatodea.
- b. Phasmida
- c. Grylloblatodea and Phasmida
- d. None

**918. Leaf insects belong to the family**

- a. Phasmidae
- b. Phylliidea
- c. Neelidae
- d. Agrionidae

**919. *Derma* means \_\_\_\_\_**

- a. Dress
- b. Wool
- c. Skin
- d. None.

**920. Earwig belongs to the order**

- a. Zoraptera
- b. Dermaptera
- c. Phasmida
- d. None.

**921. Forficulidae belongs to the order**

- a. Zoraptera
- b. Orthoptera
- c. Dermaptera
- d. None.

**922. Labiidae belongs to the order**

- a. Grylloblattodea
- b. Orthoptera
- c. Dermaptera
- d. None

**923. *Embios* means \_\_\_\_\_**

- a. Lively
- b. deadly
- c. Lively and deadly
- d. None

**924. In----- head concealed under the pronotal shield**

- a. Orthoptera
- b. Homoptera
- c. Dictyoptera
- d. Neuroptera

**925. *Periplanata americana* belongs to the suborder**

- a. Blattaria
- b. Mantodea
- c. Caelifera
- d. None

**926. The word thysanura is derived from thysan and ura in which the ura means.**

- a. Bristle
- b. Tail
- c. Tube
- d. None

**927. Which common name is incorrectly written?**

- a. Horsefly
- b. Honey bee
- c. Ground beetle
- d. Lightningbug

**928. Termitarium is the nest of termites**

- a. Underground
- b. Above the ground
- c. In the litter
- d. In the water

**929. *Odontotermis obesus* belongs to the family**

- a. Rhinotermitidae
- b. Termitidae
- c. Kalotermitidae
- d. Hodotermitidae

**930. Termites can be collected from the \_\_\_\_\_**

- a. Soil
- b. Water
- c. Paper
- d. Wood

**931. "zor" means -----**

- a. Lively
- b. Deadly
- c. Purely
- d. None.

**932. "psoco" means \_\_\_\_\_**

- a. To eat
- b. To gnaw
- c. To drink
- d. None.

**933. Liposcelidae family belongs to the order**

- a. Orthoptera
- b. Zoraptera
- c. Psocoptera
- d. Lepidoptera

**934. *Liposcelis* sp. belongs to the order**

- a. Lepidoptera
- b. Neuroptera
- c. Coleoptera
- d. Psocoptera

**935. Chicken louse belongs to the order**

- a. Siphunculata
- b. Dermaptera
- c. Mallophaga
- d. None.

**936. Philopteridae belongs to the order**

- a. Phasmida
- b. Siphunculata
- c. Mallophaga
- d. None

**937. "siphunos" means \_\_\_\_\_**

- a. Glass
- b. Rubber
- c. Tube
- d. Jar

**938. In \_\_\_\_\_ head is broader than prothorax.**

- a. Chicken louse
- b. Human louse
- c. Chicken louse and human louse
- d. None.

**939. Phthiriidae family belongs to the order**

- a. Phasmida
- b. Protura
- c. Thysanoptera
- d. Siphunculata

**940. Sucking lice of horses belong to the family**

- a. Pediculidae
- b. Phthiriidae
- c. Haematopinidae
- d. Monoponidae

**941. "hemi" means -----**

- a. Hole
- b. Half
- c. Hear
- d. Hair

**942. Family of the *Sitotroga cerealella***

- a. Coccidae
- b. Aleurodidae
- c. Aphididae
- d. Pyralidae

- 943. Bugs belong to the order \_\_\_\_\_**  
a. Homoptera  
b. Hemiptera  
c. Hymenoptera  
d. None
- 944. Terrestrial bugs belong to the suborder**  
a. Cryptocerata  
b. Gymnocerata  
c. Adephaga  
d. None
- 945. Water bugs belong to the sub order**  
a. Cryptocerata  
b. Gymnocerata  
c. Adephaga  
g. None
- 946. Shield bugs belong to the family \_\_\_\_\_**  
a. Lygaeidae  
b. Pentatomidae  
c. Cimicidae  
d. Tingidae
- 947. Giant water bugs belong to the family**  
a. Corixidae  
b. Nepidae  
c. Hydrometridae  
d. Belostomatidae
- 948. Sugarcane leafhopper belongs to the order**  
a. Hemiptera  
b. Homoptera  
c. Hymenoptera  
d. None
- 949. In whiteflies the last nymphal instars is very inactive and look like a pupa. It is to be called pupal stage.**  
a. True  
b. False  
c. complete  
d. Incomplete.
- 950. Mango mealy bugs belong to the order \_\_\_\_\_ .**  
a. Mallophaga  
b. Hemiptera  
c. Homoptera  
d. Hymenoptera
- 951. Homoptera is divided into \_\_\_\_\_ suborders.**  
a. 2  
b. 3  
c. 4  
d. 5
- 952. Lanternflies belong to the order**  
a. Diptera  
b. Lepidoptera  
c. Homoptera  
d. Hemiptera
- 953. *Pyrilla perpusilla* belongs to the family**  
a. Psyllidae  
b. Lophopidae  
c. Pentatomidae  
d. Peridae.
- 954. Diaspididae family belongs to the order \_\_\_\_\_ .**  
a. Dermaptera  
b. Hemiptera  
c. Homoptera  
d. Lepidoptera.
- 955. Lac insects belong to the order \_\_\_\_\_**  
a. Lepidoptera  
b. Hymenoptera  
c. Homoptera  
d. None
- 956. Lacciferidae belongs to the order**  
a. Lepidoptera  
b. Coleoptera  
c. Homoptera  
d. Hymenoptera
- 957. In Thysanoptera, the mouthparts are**  
a. Symmetrical  
b. Asymmetrical  
c. Chewing  
d. None

958. Thysanoptera is further divided into \_\_\_\_\_ suborders.  
 a. 2 b. 3  
 c. 4 d. 5
959. In terebrantia the end of abdomen is \_\_\_\_\_  
 a. Tube like b. Bluntly rounded  
 c. Elongate d. None
960. Tubulifera belongs to the order  
 a. Trichoptera b. Thysanura  
 c. Thysanoptera d. None
961. Family Thripidae belongs to the order  
 a. Thysanura b. Thysanoptera  
 c. Trichoptera d. None
962. Holometabola is also known as \_\_\_\_\_  
 a. Hemimetabola b. Exopterygota  
 c. Endopterygota d. None
963. "neuro" means -----  
 a. A neck b. A net  
 c. A nerve d. A needle
964. Green lacewing belongs to the family  
 a. Nemapteridae b. Gomphidae  
 c. Ascalaphidae d. Chrysopidae
965. Antlion belongs to the order \_\_\_\_\_  
 a. Hymenoptera b. Neuroptera  
 c. Isoptera d. Thysanoptera
966. Antlion belongs to the family \_\_\_\_\_  
 a. Ascalaphidae b. Myrmeleontidae.  
 c. Nemopteridae d. None
967. Rove beetle belongs to the family  
 a. Geotrupidae b. Silphidae  
 c. Stephylinidae d. None
968. Firefly belongs to the family \_\_\_\_\_  
 a. Silphidae b. Lampyridae  
 c. Histeridae d. None
969. Powder post beetle belongs to the family  
 a. Anobiidae b. Bostrichidae  
 c. Lyctidae d. None
970. Human flea belongs to the order  
 a. Mallophaga b. Siphunculata  
 c. Siphonaptera d. Strepsiptera
971. Horse flies belong to the order  
 a. Dermaptera b. Diptera  
 c. Lepidoptera d. None
972. Robber flies belong to the family  
 a. Asilidae b. Tabanidae  
 c. Culicidae d. None

**973. Cabbage butterflies belong to the family**

- a. Muscidae
- b. Cecidomyiidae
- c. Pieridae
- d. Pyralidae.

**974. Wood wasps belong to the family**

- a. Vespidae
- b. xiphydriidae
- c. Tenthredinidae
- d. None

**975. Honey bees belong to the family**

- a. Apidae
- b. Vespidae
- c. Formicidae
- d. Scoliidae

**976. Butterflies belong to the order**

- a. Diptera
- b. Lepidoptera
- c. Hymenoptera
- d. None

**977. Insect whose larvae are quite unlike the adult along with the presence of pupal instar**

- a. Hopometabolous
- b. Hemi-metabolous
- c. Hemimetabolous
- d. Heterometabolous

**978. Insects having no metamorphosis**

- a. Hopometabolous
- b. Ametabolous
- c. Hemimetabolous
- d. Heterometabolous

**979. Self sufficient and self regulated habit where biotic and abiotic components interact together for exchange of energy in a continuous cycle**

- a. Community
- b. Ecosystem
- c. Habitat
- d. Environment

**980. A complex unit formed by all the population of that area**

- a. Community
- b. Ecosystem
- c. Environment
- d. Habitat

**981. The transfer of food energy from the plants through a series of organisms with repeated eating and being eaten**

- a. Food Chain
- b. Food web
- c. Biotic Potential
- d. None of above

**982. The interlocking pattern of food chain with all sorts of short circuits & connections**

- a. Food chain
- b. Food web
- c. Biotic potential
- d. Antibiosis

**983. Conversion of 6-carbon chain glucose molecule into two molecules of 3-carbon chain pyruvic acid**

- a. Glycolysis
- b. Krebs cycle
- c. Transition
- d. Antibiosis

**984. Series of reaction in mitochondrion that brings about oxidation of acetyl residues to CO<sub>2</sub> liberating H<sub>2</sub> and forming water**

- a. Glycolysis
- b. Krebs cycle
- c. Transition
- d. Antibiosis

**985. Organelles where protein synthesis take place**

- a. Mitochondria
- b. Ribosome
- c. Cell membrane
- d. DNA

**986. Chemical which give adaptive advantage to the producer**

- a. Allomones
- b. Kiaromones
- c. Attractants
- d. Repellents

**987. Chemical which give adaptive advantage to the receiver**

- a. Allomones
- b. Kairomones
- c. Attractants
- d. Repellents

**988. Chemcials which inhibit feeding or piercing**

- a. Supressants
- b. Deterrents
- c. Attractants
- d. Repellents

**989. Chemicals which prevent maintenance of feeding or ovi position**

- a. Supressants
- b. Deterrents
- c. Attractants
- d. Repellents

**990. Chemical which orient insects towards the host**

- a. Attractants
- b. Repellents
- c. Supressants
- d. Deterrents

**991. Chemical which orient insects away from the host**

- a. Attractants
- b. Repellent
- c. Supressants
- d. Deterrents

**992. The study of economic poisons, their effects, mechanism of action and metabolism of toxicant**

- a. Entomology
- b. Embryology
- c. Toxicology
- d. Botany

**993. Abilit of a chemical to bring about changes in the biological system of the target animal**

- a. Acute toxicity
- b. Chronic toxicity
- c. Toxicity
- d. Poisoning

**994. Acute stage of poisoning due to the application of a single dose**

- a. Toxicity
- b. Acute toxicity
- c. Chronic toxicity
- d. None of above

**995. Condition of toxicity which lasts for the entire life of the target animal and has the accumulating effect of small repeated doses.**

- a. Toxicity
- b. Acute toxicity
- c. Chronic toxicity
- d. Hazards

**996. The probability of being harmed due to the use exposon/handling of the toxic substances**

- a. Hazard
- b. Toxicity
- c. Risk
- d. Acute toxicity

**997. The concentration of a toxicant residue in or on a food when first offered for consumption.**

- a. Acceptable daily intake
- b. Maximum residual limit
- c. Biomagnification
- d. None of above

**998. The amount of initially laid down insecticidal chemical on the surface**

- a. Biomagnification
- b. Acceptable daily intake
- c. Maximum residul limit
- d. Toxicity deposit

**999. Family of *Chilo partellus* is:**

- a. Muscidae
- c. Arctiidae

- b. Scarabaeidae
- d. Crambidae

**1000. Entomology is knowledge of:**

- a. Ducks
- c. Hexapods

- b. Bucks
- d. Octapods

### Key to Questions

1. d	2. a	3. d
4. d	5. d	6. a
7. b	8. c	9. a
10. c	11. a	12. a
13. d	14. d	15. d
16. d	17. c	18. d
19. b	20. d	21. c
22. d	23. d	24. a
25. d	26. a	27. d
28. b	29. d	30. c
31. d	32. b	33. d
34. b	35. b	36. c
37. a	38. d	39. d
40. d	41. d	42. c
43. d	44. d	45. b
46. a	47. b	48. a
49. d	50. a	51. a
52. d	53. a	54. c
55. c	56. a	57. a
58. a	59. a	60. a
61. a	62. d	63. d
64. b	65. d	66. b
67. d	68. a	69. d
70. d	71. a	72. b
73. a	74. c	75. c
76. c	77. c	78. a
79. c	80. b	81. d
82. c	83. a	84. d
85. a	86. a	87. b
88. a	89. a	90. b
91. d	92. d	93. d
94. c	95. b	96. c
97. c	98. d	99. a
100. d	101. c	102. d
103. c	104. a	105. c
106. c	107. a	108. c
109. b	110. a	111. d
112. a	113. b	114. d
115. c	116. d	117. b
118. c	119. c	120. a
121. b	122. b	123. c
124. b	125. b	126. b
127. b	128. b	129. c
130. b	131. d	132. d
133. c	134. c	135. a
136. a	137. a	138. a

139. c	140. b	141. a
142. b	143. a	144. b
145. d	146. b	147. b
148. a	149. b	150. d
151. a	152. d	153. c
154. a	155. c	156. c
157. b	158. a	159. b
160. c	161. a	162. c
163. d	164. a	165. d
166. a	167. d	168. d
169. c	170. b	171. c
172. a	173. a	174. c
175. a	176. c	177. a
178. c	179. b	180. d
181. d	182. d	183. a
184. d	185. d	186. d
187. b	188. d	189. d
190. a	191. b	192. b
193. d	194. c	195. a
196. b	197. c	198. d
199. c	200. a	201. d
202. b	203. c	204. b
205. b	206. a	207. b
208. a	209. a	210. c
211. d	212. a	213. d
214. a	215. c	216. b
217. c	218. d	219. d
220. d	221. b	222. c
223. c	224. c	225. d
226. a	227. a	228. c
229. d	230. a	231. d
232. c	233. c	234. c
235. b	236. b	237. b
238. a	239. c	240. b
241. c	242. b	243. c
244. b	245. a	246. a
247. d	248. b	249. c
250. b	251. d	252. b
253. c	254. b	255. b
256. c	257. c	258. c
259. a	260. a	261. b
262. b	263. a	264. b
265. a	266. b	267. a
268. a	269. c	270. a
271. b	272. c	273. d
274. c	275. b	276. c
277. b	278. b	279. a
280. b	281. b	282. c
283. b	284. b	285. b
286. d	287. b	288. c
289. c	290. b	291. b
292. c	293. c	294. c
295. a	296. a	297. b
298. b	299. a	300. a
301. c	302. c	303. a
304. c	305. b	306. d
307. d	308. c	309. c
310. a	311. d	312. a

313. d	314. d	315. c
316. b	317. b	318. a
319. a	320. a	321. b
322. b	323. d	324. b
325. b	326. b	327. b
328. a	329. d	330. c
331. d	332. d	333. d
334. a	335. b	336. b
337. b	338. b	339. b
340. c	341. a	342. d
343. b	344. a	345. a
346. b	347. d	348. a
349. a	350. d	351. d
352. a	353. b	354. b
355. a	356. c	357. a
358. a	359. b	360. c
361. a	362. a	363. c
364. a	365. a	366. a
367. a	368. b	369. a
370. b	371. b	372. a
373. d	374. a	375. a
376. c	377. a	378. b
379. a	380. b	381. a
382. c	383. b	384. c
385. c	386. c	387. b
388. d	389. b	390. b
391. b	392. b	393. b
394. a	395. a	396. a
397. a	398. c	399. a
400. a	401. c	402. b
403. a	404. b	405. a
406. b	407. c	408. a
409. b	410. d	411. a
412. a	413. a	414. a
415. d	416. b	417. a
418. b	419. a	420. a
421. a	422. a	423. a
424. a	425. b	426. c
427. b	428. a	429. a
430. b	431. a	432. a
433. a	434. a	435. c
436. d	437. a	438. a
439. a	440. b	441. d
442. a	443. c	444. d
445. a	446. a	447. a
448. a	449. a	450. b
451. a	452. a	453. a
454. c	455. a	456. b
457. d	458. a	459. b
460. a	461. a	462. a
463. a	464. a	465. c
466. a	467. a	468. b
469. b	470. b	471. a
472. a	473. b	474. a
475. c	476. b	477. b
478. b	479. a	480. a
481. a	482. b	483. b
484. a	485. b	486. b

487. c	488. a	489. a
490. a	491. a	492. c
493. a	494. b	495. a
496. d	497. a	498. b
499. b	500. a	501. a
502. b	503. c	504. a
505. b	506. c	507. b
508. c	509. a	510. a
511. b	512. c	513. a
514. a	515. b	516. a
517. b	518. c	519. c
520. a	521. c	522. a
523. b	524. d	525. c
526. b	527. c	528. a
529. b	530. b	531. c
532. c	533. b	534. a
535. c	536. c	537. b
538. b	539. b	540. b
541. b	542. a	543. d
544. a	545. a	546. b
547. a	548. a	549. c
550. c	551. a	552. b
553. b	554. b	555. b
556. a	557. b	558. a
559. a	560. b	561. c
562. b	563. b	564. a
565. a	566. b	567. d
568. b	569. a	570. a
571. d	572. a	573. a
574. b	575. a	576. d
577. a	578. b	579. d
580. b	581. c	582. d
583. c	584. c	585. d
586. a	587. a	588. b
589. a	590. b	591. a
592. a	593. a	594. a
595. a	596. a	597. a
598. a	599. a	600. a
601. a	602. a	603. a
604. a	605. a	606. a
607. a	608. a	609. a
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613. a	614. a	615. a
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619. a	620. a	621. a
622. a	623. a	624. a
625. a	626. a	627. a
628. a	629. a	630. a
631. a	632. a	633. a
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655. a	656. a	657. a
658. a	659. a	660. a

661. a	662. a	663. a
664. a	665. a	666. a
667. a	668. a	669. a
670. a	671. a	672. a
673. a	674. a	675. a
676. a	677. a	678. a
679. a	680. a	681. b
682. a	683. a	684. a
685. a	686. a	687. a
688. a	689. a	690. a
691. a	692. a	693. b
694. b	695. d	696. a
697. b	698. c	699. b
700. d	701. a	702. b
703. b	704. c	705. b
706. a	707. a	708. c
709. a	710. c	711. c
712. b	713. b	714. a
715. c	716. b	717. b
718. c	719. b	720. b
721. b	722. a	723. c
724. a	725. b	726. b
727. c	728. b	729. a
730. b	731. b	732. b
733. d	734. b	735. a
736. c	737. b	738. d
739. a	740. c	741. d
742. b	743. c	744. b
745. b	746. a	747. b
748. b	749. b	750. b
751. a	752. a	753. a
754. c	755. b	756. a
757. a	758. b	759. b
760. a	761. b	762. b
763. a	764. c	765. b
766. a	767. b	768. b
769. a	770. b	771. a
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775. a	776. a	777. c
778. d	779. a	780. a
781. b	782. b	783. b
784. a	785. a	786. b
787. a	788. b	789. a
790. a	791. a	792. b
793. a	794. a	795. a
796. b	797. b	798. a
799. b	800. a	801. b
802. a	803. b	804. b
805. a	806. d	807. b
808. c	809. a	810. a
811. c	812. a	813. d
814. d	815. a	816. b
817. c	818. d	819. d
820. c	821. b	822. a
823. c	824. d	825. c
826. a	827. d	828. a
829. b	830. a	831. c
832. d	833. c	834. d

835. a	836. c	837. d
838. a	839. d	840. b
841. a	842. b	843. c
844. d	845. d	846. c
847. a	848. b	849. d
850. b	851. b	852. b
853. b	854. c	855. d
856. a	857. d	858. b
859. d	860. a	861. b
862. a	863. d	864. c
865. c	866. d	867. c
868. b	869. d	870. d
871. a	872. a	873. d
874. a	875. b	876. c
877. d	878. d	879. b
880. a	881. b	882. c
883. a	884. c	885. b
886. c	887. c	888. b
889. b	890. b	891. b
892. b	893. c	894. a
895. a	896. c	897. b
898. a	899. c	900. c
901. a	902. a	903. a
904. c	905. b	906. b
907. b	908. a	909. b
910. c	911. a	912. b
913. b	914. b	915. d
916. b	917. b	918. b
919. c	920. b	921. c
922. c	923. a	924. c
925. a	926. b	927. d
928. a	929. b	930. d
931. c	932. b	933. c
934. d	935. c	936. c
937. c	938. a	939. d
940. c	941. b	942. b
943. b	944. b	945. a
946. b	947. d	948. b
949. b	950. c	951. a
952. c	953. b	954. c
955. c	956. c	957. b
958. a	959. b	960. c
961. b	962. c	963. c
964. d	965. b	966. b
967. c	968. b	969. c
970. c	971. b	972. a
973. c	974. b	975. a
976. b	977. a	978. b
979. b	980. a	981. a
982. b	983. a	984. b
985. b	986. a	987. b
988. a	989. b	990. a
991. b	992. c	993. c
994. b	995. c	996. a
997. b	998. d	999. d
1000. c		

