

Roll No.

D-1008

**M. Sc. (Fourth Semester) (Main/ATKT)
EXAMINATION, May-June, 2020**

ZOOLOGY

(Optional Group-C)

Paper Third

(Entomology)

Time : Three Hours] [Maximum Marks : 80

Note : Attempt all Sections as directed.

Section—A 1 each

(Objective/Multiple Choice Questions)

Note : Attempt all questions.

Choose the correct answer :

- Which type of mouthpart are found in aphid ?
 - Bitting and chewing type
 - Piercing and sucking type
 - Lapping type
 - Siphoning type

- Which type of antennae are found in Termite ?
 - Filliform
 - Serrate
 - Moniliform
 - Clavate
- Elytra are wing modification present in :
 - Cockroach
 - Grasshopper
 - Butterfly
 - Beetles
- Which layer is integument of insect is outer most layer ?
 - Cuticle
 - Basement layer
 - Epidermis
 - All of the above
- Gizzard in insect is a part of :
 - Alimentary canal
 - Circulatory system
 - Excretory system
 - Endocrine system
- Excretory system of insect include :
 - Protodaeum

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- (b) Malpighian tubules
 - (c) Cerci
 - (d) Dorsal tube
7. Circulatory system of insect is :
- (a) Open circulatory system
 - (b) Closed circulatory system
 - (c) Both of the above
 - (d) None of the above
8. The body cavity of insect is :
- (a) Haemolymph
 - (b) Haemocoel
 - (c) Haemocyanin
 - (d) All of the above
9. Haemolymph is colourless due to absence of :
- (a) Haemoglobin
 - (b) Haemocyanin
 - (c) Haemocoel
 - (d) Sodium-potassium ratio
10. Stridulating organ is not present in :
- (a) Orthoptera
 - (b) Coleoptera
 - (c) Hemiptera
 - (d) Lepidoptera

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11. The visual organ in insect are :
- (a) Simple eye
 - (b) Compound eye
 - (c) Both of the above
 - (d) None of the above
12. The structural unit in compound eye of insect is :
- (a) Ommatidia
 - (b) Ocellus
 - (c) Rhabdome
 - (d) Stemmata
13. An endocrinal gland consist of :
- (a) Corpora cardiac
 - (b) Corpora allata
 - (c) Both of the above
 - (d) None of the above
14. Moulting hormone is also known as :
- (a) Ecdysone
 - (b) Neurohormone
 - (c) Juvenile
 - (d) Pheromones
15. Pheromones are the chemical released by :
- (a) Female

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- (b) Male
(c) Both of the above
(d) None of the above
16. Insect egg is (on the basis 1 yolk) :
- (a) Centrolecithal
(b) Alecithal
(c) Homolecithal
(d) Isolecithal
17. Complete metamorphosis in insect includes :
- (a) Egg—Adult
(b) Egg—Larva—Pupa—Adult
(c) Egg—Nymph—Adult
(d) Egg—Larva—Adult
18. Sound producing organ in Cicada :
- (a) Stridulatory
(b) Tymbal
(c) Elytra
(d) All of the above
19. Locust does not destroy which crop ?
- (a) Barseem
(b) Maize
(c) Soyabean
(d) Neem

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20. What is the full form of IPM in pest control ?
- (a) Integrated Pest Management
(b) Important Pest Management
(c) Import Pesticide Management
(d) Integrated Public Management

Section—B

2 each

(Very Short Answer Type Questions)

Note : Attempt all questions in two or three sentences.

1. What is Tentorium ?
2. What is function of mandible in insect ?
3. Write the longitudinal veins in wing venation.
4. What is haemolymph ?
5. What is sclerotization ?
6. Describe the structure of simple eye in insect.
7. What are excretory organ in insect ?
8. What is motilting in insect ?

Section—C

3 each

(Short Answer Type Questions)

Note : Attempt all questions in 75 words.

1. Describe the various types of insect head as per habit and habitat.
2. Describe the modification in insect mouthpart.
3. Describe the structure of compound eye.
4. Explain sound producing organ in insect.

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5. Describe the structure and function of malpighian tubules in insect.
6. Describe the structure of alimentary canal in insect.
7. Explain the important pest of soybean.
8. Explain the effect of insecticide on CNS.

Section—D

5 each

(Long Answer Type Questions)

Note : Attempt all questions in 150 words.

1. Describe structure, types and function of antennae.

Or

Describe the structure and function of cuticle.

2. Describe the physiology of digestion in insect.

Or

Describe the structure of circulatory system in insect.

3. Describe the physiology of vision in insect.

Or

Explain the types of function of pheromones.

4. Describe different types of metamorphosis in insect.

Or

Explain plan modern concept of pest management.

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