2025/11

SET A

M.Sc. ZOOLOGY
THIRD SEMESTER
ENTOMOLOGY: INSECT PHYSIOLOGY AND ECONOMIC ENTOMOLOGY-II
MSZ-304(D)

[USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs. **Full Marks: 35**

Objective

Time: 15 min. **Marks: 10**

Choose the correct answer from the following: *1X10=10*

1. Cuticle present on the dorsal side of the insect body is called -
   a. Tergum b. Sternum
   c. Pleuron d. None of the above

2. Upward and downward movements of abdomen is controlled by-
   a. Lateral muscles b. Transverse muscles
   c. Longitudinal muscles d. All of the above

3. Alary muscles are involved in movements of -
   a. Heart b. Diaphragms
   c. Antennae d. Legs

4. Each compound eye is composed of several -
   a. Stemata b. Dorsal eye
   c. Ommatidium d. Corneagen cell

5. Superposition image is formed during-
   a. Night time b. Day time
   c. Both a and b d. Twilight

6. The hormone released by corpus allatum is called-
   a. Ecdysteroid b. Prothoracicotrophic
   c. Eclosion d. Juvenile

7. In insect egg, position of yolk is on the-
   a. Top b. Centre
   c. Bottom d. Right side

8. After formation of blastoderm in embryonic development, remaining cells in the centre is called-
   a. Vitellophage b. Energid
   c. Germ cells d. Yolk

9. In Trichoid sensilla, cuticular structure formed-
   a. Seta
   b. Hair
   c. Plate
   d. Pit

10. The ion involved in the mechanism of light production is-
   a. Sodium
   b. Potassium
   c. Magnesium
   d. Zinc

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Descriptive

Time : 1 hrs. 15 min. **Marks : 25**

[Answer question no.1 & any two (2) from the rest]

1. Write a note on hormonal interplay during moulting of insect 5

2. Describe the ultrastructure of skeletal muscles. Differentiate Synchronus and Asynchronus flight muscles. 8+2=10

3. Write about different types of receptor organs of insects with their functions. 10

4. Write the structure and functions of any 2 exocrine glands of insects 5+5=10

5. Write short notes on- (any 2): 5+5=10
   1. Visceral muscles of insects
   2. Structure of insect egg
   3. Dorsal ocelli

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