

**M.Sc. ZOOLOGY**  
**THIRD SEMESTER [SPECIAL REPEAT]**  
**ENTOMOLOGY: INSECT PHYSIOLOGY &**  
**ECONOMIC ENTOMOLOGY-II**  
**MSZ-304 D**

**SET**  
**A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

Marks: 10

( Objective )

1×10=10

*Choose the correct answer from the following:*

- Larval characters of insect are maintained by:
  - Moulting hormone
  - Prothoracicotropic hormone
  - Juvenile hormone
  - Bursicon
- Insect eggs are:
  - Centrolecithal
  - Microlecithal
  - Isolecithal
  - Alecithal
- How many segments are present in insect head?
  - Three
  - Four
  - Five
  - Six
- All muscles of insects are:
  - Striated
  - Nonstriated
  - Both a & b
  - None of the above
- Compound eyes produce 'Apposition image' during the time of:
  - Night
  - Bright light
  - Twilight
  - Any time
- Alary muscles are connected with contraction and expansion of:
  - Spiracle
  - Alimentary canal
  - Heart
  - Trachea
- Colour of the diapausing eggs are:
  - Black
  - White
  - Brown
  - Colourless
- In insect, sense of tastes are received by:
  - Olfactory receptor
  - Mechanoreceptor
  - Photoreceptor
  - Gustatory receptor
- In honey bee, wax glands are present on the:
  - Head
  - Thorax
  - Abdomen
  - Ovipositor

10. Mosquito produces sound by:
- a. Friction between two body parts
  - b. Vibration of tymbals
  - c. Vibration of wings
  - d. All of the above

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**( Descriptive )**

Time : 1 hr. 15 mins.

Marks : 25

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

1. Describe the ultrastructure of skeletal muscles of insect. 5
2. Name the groups of insect on the basis of metamorphosis. Write about the endocrine control of metamorphosis. 3+7=10
3. What is exocrine gland? Write about any two exocrine glands found in insects. 2+4+4=10
4. What is diapause? Describe the role of hormones on diapause. 2+8=10
5. Write short notes on: (*any two*) 2×5=10
  - a) Dorsal ocelli
  - b) Pheromones of insect
  - c) Chemoreceptors
  - e) Synchronus & Asynchronus muscles of insect

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