

M.Sc. ZOOLOGY  
THIRD SEMESTER  
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.

**(Objective)**

Marks: 10

Choose the correct answer from the following:

$1 \times 10 = 10$

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

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

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