

**M.Sc. ZOOLOGY
THIRD SEMESTER**

**ENTOMOLOGY:INSECT PHYSIOLOGY AND ECONOMIC ENTOMOLOGY-II
MSZ-304D**

[USE OMR FOR OBJECTIVE PART]

**SE1
A**

Duration: 1.30 hrs.

Full Marks: 35

Time: 15 min.

(Objective)

Marks: 10

1X10=10

Choose the correct answer from the following:

1. Ecdysone or moulting hormone is secreted by-
 - a. Corpora allata
 - b. Corpora cardiaca
 - c. Prothoracic gland
 - d. Neurosecretory cells of the brain
2. The outer covering of the insect egg is called-
 - a. Micropyle
 - b. Chorion
 - c. Vitelline membrane
 - d. Blastoderm
3. In insect, marked changes in bodily form during development is termed as-
 - a. Metamorphosis
 - b. Moulting
 - c. Eclosion
 - d. Sclerotization
4. Which one of the following is an Ectohormone?-
 - a. Pheromone
 - b. Allomone
 - c. Kiromone
 - d. All of the above
5. Wax glands of worker bees are situated on the-
 - a. Head
 - b. Thorax
 - c. Abdomen
 - d. Legs
6. Gustatory receptor belongs to-
 - a. Mechanoreceptor
 - b. Chemoreceptor
 - c. Hygroreceptor
 - d. Thermoreceptor
7. Insect muscles involved in movement of heart is-
 - a. Skeletal
 - b. Longitudinal
 - c. Alary
 - d. Retractor
8. The substance which is oxidized to produce light in insect is -
 - a. Luciferase
 - b. Luciferin
 - c. Pyrophosphate
 - d. Acetylcholine

9. How many ocelli are found in insect?
a. One
b. Two
c. Three
d. Four
10. A Cuticular lens found on topmost region of insect eye is called-
a. Retina
b. Cornea
c. Rhabdom
d. Iris

-- --- --

(Descriptive)

Time : 1 hrs. 15 min.

Marks : 25

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

1. Write the definitions of Ametabolous, Hemimetabolous and Holometabolous group of insects with one example each. 1+2+2=5
2. What is diapause? Write about the endocrine control of diapause. 2+8=10
3. Describe the structure of skeletal muscles. Write a note on Synchronous and Asynchronous muscles 8+2= 10
4. Why insect produces sound? Discuss the mechanisms of sound production. 2+8=10
5. Write short notes on: (Any two) 5X2=10
 - A. Dorsal ocelli
 - B. Head muscles of insect
 - C. Moulting process
 - D. Poison gland of honey bee

= = *** = =