

M.Sc. ZOOLOGY
THIRD SEMESTER
ENTOMOLOGY: INSECT PHYSIOLOGY &
ECONOMIC ENTOMOLOGY-I
MSZ-303 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:

1×10=10

1. Coupling achieved by broad overlapping of adjacent margins of both wings are called as:
 - a. Jugate
 - b. Amplexiform
 - c. Hamulate
 - d. Frenate
2. The internal skeleton of the head capsule of insect is known as:
 - a. Tentorium
 - b. Scape
 - c. Elytra
 - d. Stemmata
3. Insect head consist of:
 - a. 3-segments
 - b. 4-segments
 - c. 5-segments
 - d. 6-segments
4. Hypognathous mouth parts present in:
 - a. Lady bird Beetles
 - b. Bugs
 - c. Grasshopper
 - d. Butterflies
5. Palaeopteran order is:
 - a. Hymenoptera
 - b. Hemiptera
 - c. Diptera
 - d. Odonata
6. Theis an unicellular layer formed from the polygonal cells.
 - a. Basement membrane
 - b. Epidermis
 - c. Integument
 - d. Ectoderm
7. Theis a secretory product of the epidermis.
 - a. Integument
 - b. Hypodermis
 - c. Cuticle
 - d. Basement membrane
8. The male mosquitoes lack theand do not feed on blood.
 - a. Mandibular stylets
 - b. Hypopharynx
 - c. Proboscis
 - d. Maxillary palpi
9. The chewing mouth parts are absent in the order:
 - a. Coleoptera
 - b. Diptera
 - c. Dictyoptera
 - d. Orthoptera

10. The sponging mouth parts are found in the insect:
- a. Mosquitoes
 - b. Grasshopper
 - c. Beetle
 - d. Housefly

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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

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

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| 1. Write a short note on insect integument with a suitable diagram. | 5 |
| 2. Explain the piercing-sucking mouth parts with a suitable diagram. | 10 |
| 3. Explain the chewing mouth parts with a suitable diagram. | 10 |
| 4. Explain about apterygote orders. | 10 |
| 5. Write about insect wing venation with diagram. Explain about wing coupling mechanism in insects. | 5+5=10 |

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