

M.Sc. (Part—II) Semester—III (CBCS) Examination
ZOOLOGY
(Entomology—II (Insect 43 Anatomy and Physiology))
Paper—XII (Elective Paper—II)

Time : Three Hours]

[Maximum Marks : 80

- Note :—** (1) All questions are compulsory.
(2) All questions carry equal marks.
(3) Illustrate your answers with suitable diagrams wherever necessary.

1. Give an account on structure and modifications of digestive system.

OR

Give an account on physiology of circulation in insects.

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2. Give an account of structure and modifications of respiratory system.

OR

Describe the physiology of excretory system.

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3. Explain the following :

- (a) Neurotransmitters
- (b) Basic structure of Brain
- (c) Cholinergic system
- (d) The neurons.

OR

- (e) Production of receptor potentials in campaniform sensilla.
- (f) Transmission of nerve impulse.
- (g) The central nervous system.
- (h) Aminergic system.

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4. Write account on :

- (i) Structure of testis
- (j) Types of insemination
- (k) The neurosecretory cells
- (l) The corpora cardiaca.

OR

- (m) The Ecdysial glands
- (n) Different types of exocrine glands (Pheromone glands)
- (o) Types of ovarioles
- (p) Oviposition.

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5. Explain the following :

- (q) Moulting process
- (r) Imago eclosion from cocoon
- (s) Types of Pupae
- (t) Diapause.

OR

- (u) Biochemistry of insect cuticle
- (v) Types of Larvae
- (w) Biochemical composition of egg
- (x) Polyphenism.

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