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(CBCS)
(5th Semester)

ZOOLOGY

EIGHTH (B) PAPER

(Entomology)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(Marks : 10)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Which of the following pests feeds on the flower and pollen of cotton?

- (a) *Helicoverpa armigera* ()
- (b) *Mylabris pustulata* ()
- (c) *Rabida frontalis* ()
- (d) *Alcido desaffaber* ()

2. Which is the main characteristic feature of an insect?

- (a) Three pairs of legs ()
- (b) Presence of wings ()
- (c) Pairs of antennae ()
- (d) All of the above ()

3. In female insect, spermatheca is used for

- (a) development of oocytes ()
- (b) deposition of yolk ()
- (c) storage of sperm ()
- (d) passage of the oocyte into the oviduct ()

4. Endocuticle layer is made up of

- (a) chitin and arthropodin ()
- (b) chitin and sclerotin ()
- (c) chitin and resilin ()
- (d) chitin only ()

5. Which of the following hormones regulates growth and metamorphosis in insects?
- Brain hormone ()
 - PTTH ()
 - Juvenile hormone ()
 - Growth hormone ()
6. Which one of the following castes of termite is sterile?
- Queen ()
 - Winged termite ()
 - Soldier ()
 - King ()
7. Prothoracicotropic hormone is secreted by
- prothoracic gland ()
 - neurosecretory cells ()
 - corpora allata ()
 - corpora cardiaca ()
8. Which of the following species produces silk of the superior quality?
- Attacus atlas* ()
 - Bombyx mori* ()
 - Attacus ricini* ()
 - Antheraea assamensis* ()
9. The third generation pesticides are
- insect hormone analogues ()
 - pheromones ()
 - insect repellents ()
 - pathogens ()
10. DDT was first synthesized by
- Michael Faraday ()
 - Schrader ()
 - Othmar Zeidler ()
 - Paul Muller ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write notes on the following in 5 to 8 sentences each :

3×5=15

UNIT—I

1. General characters of insects

OR

2. Methods of preservation of insects

UNIT—II

3. Male reproductive organs of insects

OR

4. Biting and chewing type of mouthpart

UNIT—III

5. Holometabolous metamorphosis

OR

6. Hemimetabolous metamorphosis

UNIT—IV

7. Economic importance of silkworm

OR

8. Types of insect hormones

UNIT—V

9. Predatory insects

OR

10. Integrated pest management (IPM)

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following :

10×5=50

UNIT—I

1. Write the general characters and classification of Endopterygota with examples.

OR

2. Describe the methods of collection of insects. Write the insect pest and diseases of rice.

UNIT—II

3. Describe the structure and functions of the body wall of insect.

OR

4. Define respiration. Discuss the respiratory organs of insects with neat labelled diagram.

UNIT—III

5. What is metamorphosis? Describe the hormonal regulation of insect metamorphosis.

OR

6. Explain the social behaviour of insect and elucidate the caste system in insects with reference to termite.

UNIT—IV

7. Describe the life cycle of honeybee. Add a note on its economic importance.

OR

8. Describe the biological effects and their applications of insect hormones.

UNIT—V

9. Write the different types of biological pest control of insect and its advantages.

OR

10. Give a brief account of parasitic insects and their effects with examples.

2023

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