

2024

(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. Respiratory organ of insect is

- (a) lung ()
- (b) trachea ()
- (c) gill ()
- (d) None of the above ()

2. The scientific name of rice stem borer is

- (a) *Scirpophaga incertulas* ()
- (b) *Nilaparvata lugens* ()
- (c) *Nephotettix virescens* ()
- (d) *Cnaphalocrocis medinalis* ()

3. The cuticle of insect is made up of

- (a) chitin ()
- (b) resilin ()
- (c) sclerotin ()
- (d) All of the above ()

4. The hind gut in insect is divided into
 (a) 2 sections () (b) 3 sections ()
 (c) 4 sections () (d) 5 sections ()
5. PTTH stimulates the production of ecdysone by
 (a) thoracic gland () (b) adrenal gland ()
 (c) pituitary gland () (d) prothoracic gland ()
6. The queen of a termite can lay
 (a) 2000 to 4000 eggs/day ()
 (b) 3000 to 5000 eggs/day ()
 (c) 4000 to 6000 eggs/day ()
 (d) 6000 to 7000 eggs/day ()
7. Which of the following hormones inhibits metamorphosis?
 (a) PTTH () (b) Juvenile hormone ()
 (c) Ecdysone () (d) None of the above ()
8. Which insect produces wax?
 (a) Honeybee () (b) Lac ()
 (c) Silkworm () (d) Both (a) and (b) ()
9. Augmentation is a part of
 (a) chemical control () (b) biological control ()
 (c) conservation () (d) None of the above ()
10. Acceptable pest level is a part of
 (a) biological control () (b) chemical control ()
 (c) IPM () (d) None of the above ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

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

3×5=15

UNIT—I

1. Apterygota

OR

2. Common pest of cotton

UNIT—II

3. Spiracle

OR

4. Stomatodeum (foregut)

UNIT—III

5. Metamorphosis

OR

6. Ecdysone

UNIT—IV

7. Lac

OR

8. Economic importance of honeybee

UNIT—V

9. Biological control

OR

10. Parasitic insect

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

10×5=50

UNIT—I

1. Describe the general characters of insecta. Write the classification of exopterygota with examples.

2+8=10

OR

2. Describe the methods of collection and preservation of insects.

10

UNIT—II

3. Describe different types of mouthparts of insect. 10

OR

4. Discuss the reproductive organs of insects with neat labelled diagram. 10

UNIT—III

5. Describe different types of insect metamorphosis. 10

OR

6. Explain the social behaviour of insect and elucidate the caste system in insects with reference to honeybee. 10

UNIT—IV

7. Describe the life cycle of silkworm with diagram. Add a note on its economic importance. 8+2=10

OR

8. Write notes on the following : 5+5=10
(a) Prothoracicotropic hormone
(b) Juvenile hormone

UNIT—V

9. Explain the chemical control of insect pest with suitable examples. 10

OR

10. Give an account of predatory insect with examples and add a note on their effects. 10

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