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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. Wingless primitive insects are

- (a) Pterygota ()
- (b) Apterygota ()
- (c) Exopterygota ()
- (d) Endopterygota ()

2. Pest of maize belonging to the family Crambidae is

- (a) *Chilo partellus* ()
- (b) *Sesamia inferens* ()
- (c) *Tanyrhecus indicus* ()
- (d) *Mythimna separata* ()

3. Most of the insects excrete 80% to 90% of their nitrogen waste in the form of

- (a) urea ()
- (b) uric acid ()
- (c) ammonia ()
- (d) ammonium nitrate ()

4. Tanned cuticular protein, which is water-insoluble is

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

5. The most common examples of eusocial insects are

- (a) Lepidoptera and Coleoptera ()
- (b) Trichoptera and Dictyoptera ()
- (c) Isoptera and Hymenoptera ()
- (d) Odonata and Heteroptera ()

6. Molting hormone of insects is

- (a) ecdysone ()
- (b) juvenile hormone ()
- (c) prothoracic hormone ()
- (d) aldosterone ()

7. Lac insect belongs to the order

- (a) Hymenoptera ()
- (b) Lepidoptera ()
- (c) Odonata ()
- (d) Hemiptera ()

8. Molting and pupation require a hormone called

- (a) ecdysone hormone ()
- (b) juvenile hormone ()
- (c) prothoracicotropic hormone ()
- (d) diuretic hormone ()

9. IPM was formulated into national policy in the year

- (a) 1927 ()
- (b) 1972 ()
- (c) 1792 ()
- (d) 1875 ()

10. The introduction of a pest natural enemy to a new locale is

- (a) augmentation ()
- (b) importation ()
- (c) conservation ()
- (d) infiltration ()

(SECTION : B—SHORT ANSWER)

(Marks : 15)

Write short notes on the following :

3×5=15

UNIT—I

1. General characters of order Isoptera

OR

2. Symptoms of red rot of sugarcane

UNIT—II

3. Roles of insect foregut during digestion

OR

4. Body wall of insect

UNIT—III

5. Social behaviour among insects

OR

6. Hormonal regulation of metamorphosis

UNIT—IV

7. Economically important insect

OR

8. Economic importance of lac culture

UNIT—V

9. Parasitic insects

OR

10. Biological pest control

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following :

10×5=50

UNIT—I

1. Describe the methods of collection and preservation of insect.

OR

2. Explain the general characters of phylum insect. Write the classification and general characters of subclass—I Apterygota with examples. 5+5=10

UNIT—II

3. Discuss the male reproductive organs of insect with diagram.

OR

4. Write the different types of mouthparts of insect with examples and draw the diagrams.

UNIT—III

5. Define metamorphosis. Describe the different types of metamorphosis of insect with diagram. 1+9=10

OR

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

UNIT—IV

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

OR

8. Write the different types of insect hormones and add a note on mechanism of action.

UNIT—V

9. Give a brief account of predatory insects and their effects with examples.

OR

10. Describe the different types of chemical pest control and add a note on its advantages.
