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(CBCS)

(5th Semester)

ZOOLOGY

EIGHTH (B) PAPER

(**Entomology**)

Full Marks : 75

Time : 3 hours

(**PART : A—OBJECTIVE**)

(*Marks : 25*)

The figures in the margin indicate full marks for the questions

SECTION—A

(*Marks : 10*)

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

1×10=10

1. The main characteristic feature of an insect is

- (a) three pairs of legs ()
- (b) present of wings ()
- (c) pair of antennae ()
- (d) All of the above ()

- 2.** Bunchy top in sugarcane is due to
- (a) early shoot borer ()
 - (b) internode borer ()
 - (c) top shoot borer ()
 - (d) termite ()
- 3.** The tracheal system of an insect is best described as
- (a) a method of anaerobic respiration ()
 - (b) a network of hollow tubes ()
 - (c) a chain of interconnecting cells ()
 - (d) a radial pattern of filaments ()
- 4.** Which part of the exoskeleton lies between the exocuticle and the wax layer?
- (a) Cuticulin layer ()
 - (b) Endocuticle ()
 - (c) Procuticle ()
 - (d) Cement layer ()
- 5.** How many distinct stages are there in the complete metamorphosis of an insect?
- (a) Two ()
 - (b) Three ()
 - (c) Four ()
 - (d) Five ()
- 6.** Haploid fertile male of the honeybee colony, whose only job seems to be mate with the queen, is
- (a) worker ()
 - (b) soldier ()
 - (c) king ()
 - (d) drone ()

7. Hormones which trigger every moult—larva to larva as well as pupa to adult are

- (a) PTTH and ecdysone ()
- (b) PTTH and juvenile hormone ()
- (c) ecdysone and juvenile hormone ()
- (d) None of the above ()

8. The main composition of lac is

- (a) glue, pigment and sugar ()
- (b) wax, pigment and glue ()
- (c) resin, pigment, wax and glue ()
- (d) resin, sugar and wax ()

9. In an IPM programme, which one of the following is considered first?

- (a) Legislative control ()
- (b) Mechanical control ()
- (c) Chemical control ()
- (d) Cultural control ()

10. Which of the following insecticides is capable of controlling mites?

- (a) Toxaphene ()
- (b) Cypermethrin ()
- (c) Endosulfan ()
- (d) Monocrotophos ()

SECTION—B

(Marks : 15)

Write short notes on the following in 5–8 sentences each :

3×5=15

1. Methods of insect collection

OR

General characters of insects

2. Female reproductive organs of insect

OR

Mouthparts of insect

3. Hemimetabolous metamorphosis

OR

Ametabolous metamorphosis

4. Types of insect hormones

OR

Economic importance of honeybee

5. Natural control of insect pests

OR

Fumigants

(PART : B—DESCRIPTIVE)

(Marks : 50)

The figures in the margin indicate full marks for the questions

1. Write a detailed note on the classification of insect up to order with examples. 10

OR

Define pest. Describe the major insect pests of cotton.

2+8=10

2. Discuss the digestive organ of insects with diagram. 10

OR

Write a detailed note on the composition of body wall of insects. 10

3. Explain the social behaviour of insects and elucidate the caste system in insects with reference to termite. 4+6=10

OR

What is metamorphosis? Describe the hormonal regulation of metamorphosis in insect with examples. 2+8=10

4. Explain the biological effects of insect hormones and their applications. 6+4=10

OR

Describe the life cycle of silkworm. Add a note on its economic importance. 6+4=10

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

OR

What is biocontrol? Describe the different types of biological pest control and add a note on its advantages. 2+8=10
