

- (v) What are reasons for the fact that insects are a dominant group of animals?

4. Answer the following questions : **(any three)**
10×3=30

- (i) What are the important characteristics of social organisation in insects? Write about the social behaviour of *any one* insect.
- (ii) What do you mean by plant-insect interactions? Describe plant defence mechanisms and adaptation of insects to plant defences. 2+8=10
- (iii) Describe the following type of mouth parts of insects with labelled diagrams :
(a) Biting and chewing type
(b) Piercing and sucking type 5+5=10
- (iv) Describe the digestive system of insects.
- (v) What are the different types of sense organs in insects? Describe Mechano-receptors and Chemoreceptors.
- (vi) Write the distinctive characters of the orders *Coleoptera*, *Diptera*, *Lepidoptera* and *Hymenoptera* with examples. 2½×4=10

Total number of printed pages-4

3 (Sem-6/CBCS) ZOO HE 1

2025

ZOOLOGY

(Honours Elective)

Paper : ZOO-HE-6016

(Biology of Insecta)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct option : 1×7=7
- (i) Termites have _____ type of antennae.
(a) Moniliform
(b) Filiform
(c) Plumose
(d) Serrate
- (ii) 'Costa' is a part of
(a) Antenna
(b) Mouth
(c) Wing venation
(d) Thorax

(iii) Siphoning type of mouthparts are found in

- (a) Butterfly
- (b) Housefly
- (c) Mosquitoes
- (d) Honey bee

(iv) The thorax of insects has _____ segments.

- (a) two
- (b) three
- (c) four
- (d) five

(v) Halteres are found in—

- (a) Coleoptera
- (b) Orthoptera
- (c) Diptera
- (d) Hemiptera

(vi) _____ absorbs nitrogenous waste from haemolymph.

- (a) Haemocytes
- (b) Oenocytes
- (c) Malpighian body
- (d) Rectum

(vii) Complete metamorphosis is found in—

- (a) Grasshopper
- (b) Silverfish
- (c) Dragonfly
- (d) Butterfly

2. Answer the following questions : $2 \times 4 = 8$

(i) What are the primary parts of the insect mouth ?

(ii) Distinguish between simple eyes and compound eyes of insects.

(iii) What is plastron ?

(iv) Mention the function of Haemolymph in insects.

3. Answer the following questions : (**any three**)

$5 \times 3 = 15$

(i) Distinguish between hemimetabolous and holometabolous metamorphosis.

(ii) Write about the abdominal structures of insects.

(iii) Describe the raptorial type of legs of insects.

(iv) What is *corpora allata* ? What hormone does it secrete ? Mention its functions.

$1 + 1 + 3 = 5$