

- (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

- (iv) Describe the digestive system of insects. 5+5=10

- (v) What are the different types of sense organs in insects? Describe Mechanoreceptors and Chemoreceptors.

- (vi) Write the distinctive characters of the orders *Coleoptera*, *Diptera*, *Lepidoptera* and *Hymenoptera* with examples. 2½×4=10

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- (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

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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

- (vii) Complete metamorphosis is found in—

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

- Answer the following questions : 2×4=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.

- Answer the following questions : **(any three)**

- (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