

Total No. of Printed Pages—3

5 SEM TDC DSE ZOO (CBCS) 4 (H)

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(Nov/Dec)

ZOOLOGY

(Discipline Specific Elective)

(For Honours)

Paper : DSE-4

(**Biology of Insecta**)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Fill in the blanks : 1×5=5

(a) In locust, the major portion of digestion takes place in _____.

(b) _____ is found in Chironomus larvae as respiratory pigment.

(c) *Odontotermes obesus* is the scientific name of _____.

(2)

- (d) The formation of spermatophores takes place in the _____ gland in cockroaches.
- (e) Insects breathe through _____.
2. Write short notes on any *two* of the following : $3 \times 2 = 6$
- (a) General features of insects
- (b) Phytophagous insect
- (c) Spiracles
3. Answer any *three* of the following questions : $4 \times 3 = 12$
- (a) Write a brief note about the adaptations of insect legs in different habitats.
- (b) Give an account of antennae of insects.
- (c) Distinguish between *Corpus cardiacum* and *Corpus allatum*.
- (d) Give an account on insect hormones.
4. What are the allelochemicals? Write briefly about the role of these chemicals in host plant mediation. $4 + 4 = 8$
5. Give an account of the basis of classification of insects. 6

(3)

Or

Classify the class Insecta up to order with example.

6. Explain the respiratory or digestive system of insects with suitable labelled diagrams. 7
7. Discuss how mosquitoes and housefly act as important insect vectors. 9

Or

Write short notes on any *two* of the following : $4 \frac{1}{2} \times 2 = 9$

- (a) Malpighian tubules
- (b) Social organization in insect (any insect)
- (c) Paddy pests
