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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) The hormone responsible for moulting in insect is _____.

(b) Bumblebee belongs to order _____.

(c) Insect respiratory system consists of opening on the body called _____.

(2)

(d) Types of antennae present in Dragonfly is ____.

(e) Insects that undergo complete metamorphosis is ____.

2. (a) Distinguish between the following (any two) : $3 \times 2 = 6$

(i) Endopterygota and Exopterygota

(ii) Carbicotate and Ambulatory leg

(iii) Mechanical and Biological vectors

(iv) Sponging and Siphoning mouthparts

(b) Write short notes on (any two) : $3 \times 2 = 6$

(i) Malphigian tubules

(ii) Trophallaxis

(iii) Insects as a mechanical vector

(iv) Ecdysis

3. Discuss how housefly plays as an important insect vector. 6

Or

Write a note about the communication in honeybee.

(3)

4. Describe briefly the typical oxipositor in an insect. What are styliform appendages?

$3+3=6$

Or

Describe the structure of insect photoreceptor and mention its functional mechanism.

$3+3=6$

5. What is Allelochemical? Describe mechanism of host plant selection by insects. $2+5=7$

Or

Define endocrine gland. Explain the endocrine system of insects with proper diagram.

$1+6=7$

6. Define metamorphosis. Discuss in detail about the endocrine control of metamorphosis in insects. $2+6=8$

Or

Define pheromone. Explain in detail about the odor defection mechanism in insects.

$2+6=8$

7. Describe the general features of class Insecta. Write about various antenna types insects. 5+4=9

Or

Describe the social life in insects. State advantages of being in society. 6+3=9
