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

**2 0 2 1**

( Held in January/February, 2022 )

**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) Honeybees belong to the order \_\_\_\_\_.

(b) Royal jelly is produced by \_\_\_\_\_.

(c) Compound eyes of insects consist of  
visual units are known as \_\_\_\_\_.

( 2 )

(d) The tracheal system bearing ten pairs of functional spiracles is known as \_\_\_\_\_.

(e) Exoskeleton of insects is made-up of \_\_\_\_\_.

2. Write short notes on/Answer any *two* of the following : 3×2=6

(a) General characters of insects

(b) Write the systematic position of any silkworm up to order.

(c) Haemolymph

3. Answer any *three* of the following questions : 4×3=12

(a) Distinguish between mechanical and biological vectors with suitable examples.

(b) Give an account of the advantages of social life in insects.

(c) Write a short note on mosquitoes as an important insect vector.

(d) Write a short note on insect's sensory receptors.

( 3 )

4. Write briefly about the types of antennae found in insects with suitable diagrams. 6

Or

Write a note on different types of mouthparts adapted for feeding in insects along with suitable diagrams. 6

5. Give an account of respiratory or excretory system in insects. 7

6. Elaborate the endocrine system or reproductive system in insects. 8

7. Define metamorphosis. Give an account of the process of insect metamorphosis. 9

Or

Write short notes on any *two* of the following : 4½×2=9

(a) Phytophagous insects

(b) Theory of coevolution of plants and insects

(c) Digestive glands in insects

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