

24529

B.Sc. Fifth Semester Degree Examination

ZOOLOGY

**Paper Z 5.1 — Cell Biology and
Developmental Biology**

(New Syllabus)

Time : 3 Hours]

Max. Marks : 80

Instructions :

- 1) Answer all the Sections.
- 2) Draw labelled diagrams wherever necessary.

SECTION - A

Answer any **FIVE** of the following **(5 × 2 = 10)**

1. Enumerate the polymorphic types of lysosomes.
2. Mention the extra embryonic membranes.
3. What are the components of Golgi complex?
4. What are germ layers? Name them.
5. Define crestae. Where are these located?
6. Distinguish between Prokaryotes and Eukaryotes.

SECTION - B

A. Write short notes on any FOUR

7. Germ layers and their derivatives. **(4 × 5 = 20)**
8. Explain the schematic representation of oogenesis.

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9. Explain the structure of 24 hours of chick embryo
10. Describe the process of haploid parthenogenesis.
11. Write the differences between the sperm and ovum.
12. Describe the structure of Hen's egg with a neat labelled diagram.

B. Answer in brief on any TWO of the following (2 × 5 = 10)

13. Enumerate the characteristics of cancer cells
14. Explain the Anaphase of mitosis with a labelled diagram
15. Describe the ultra structure of the fluid mosaic model of plasma membrane.

SECTION - C

A. Answer any THREE of the following : (3 × 10 = 30)

16. Describe the structure of 48 hours of chick embryo with neat labelled diagram.
17. Describe the mechanism of fertilization and its significance.
18. Write a detailed note on the structure and functions of extra-embryonic membranes.
19. Describe the process of spermatogenesis with the schematic representation.

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11. Answer any **ONE** of the following in detail (1 × 10 = 10)
20. Explain the ultra structure of Endoplasmic reticulum with a neat labelled diagram and mention its functions.
21. Explain the ultra structure of Golgi complex with a neat labelled diagram and mention its functions.
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