K24U 2897

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – OBE-Regular/Supplementary/ Improvement) Examination, November 2024
(2020 to 2022 Admissions)
CORE COURSE IN LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL BIOLOGY
5B08ZCB : Developmental Biology

Time : 3 Hours Max. Marks : 40

PART – A

Write on **each** of the following in **2** or **3** sentences. **Each** question carries **1** mark. **(6×1=6)**

1. Blastulation.
2. Zona radiata.
3. Germplasm theory.
4. Homeotic gene.
5. Epiboly.
6. Cryopreservation.

PART – B

Explain about **any six** of the following. **Each** question carries **2** marks. **(6×2=12)**

7. Distinguish between determinate and indeterminate type of development.
8. Comment on spiral cleavage with an example.
9. What is Placentation ?
10. What is fate map ?
11. Distinguish between ontogenetic development and phylogenetic development.
12. What is meant by artificial insemination ?
13. What is carbon particle making technique ?
14. Describe the theories of preformation and epigenesis.

P.T.O.

PART – C

Write short essay on **any four** of the following. **Each** question carries **3** marks.

(4×3=12)

15. Comment on environmental estrogens.
16. Give brief account on semen collection.
17. Describe constriction experiment of Spemann.
18. Explain cell lineage with suitable example.
19. Write an account on parturition and its hormonal control.
20. What is vital staining ?

PART – D

Write an essay on **any two** of the following. **Each** question carries **5** marks.

(2×5=10)

21. Define cleavage and give an account on different type of cleavage.
22. Write an account on experiments on sea urchin embryos leading to the double gradient concept.
23. Explain the fate map of frog with labelled diagram.
24. Write an account on assisted reproductive technology.

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