

K23U 2591



Reg. No. :

Name :

V Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, November 2023
(2020 – 2021 Admissions)
CORE COURSE IN LIFE SCIENCES (ZOOLOGY) AND
COMPUTATIONAL BIOLOGY
5B08 ZCB : 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. Hox genes.
2. *In vitro* fertilization.
3. Emboly.
4. Parturition.
5. Theory of preformation.
6. Stain used in fate marking.

PART – B

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

7. What is the importance of morphogenetic movement ?
8. Comment on the scope of germ cells.
9. What are somites derived from ?

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10. What are determinate eggs ?
11. How is gene expression controlled ?
12. What is carbon particle marking technique ?
13. What makes sea urchin a good model in studying development ?
14. What is the lineage of the cell ?

PART – C

Write short essay on **any four** of the following. **Each** question carries **3** marks. **(4×3=12)**

15. What is amphibian organizer ?
16. Describe the different types of egg with examples on the basis of distribution of yolk.
17. Write a brief note on cryopreservation of embryo.
18. What is epigenesis ? Give an example.
19. What is a teratogen ? Explain using any two examples.
20. Differentiate ZIFT and GIFT.

PART – D

Write an essay on **any two** of the following. **Each** question carries **5** marks. **(2×5=10)**

21. With the help of a diagram explain the structure of a frog egg.
 22. Write an account on the different types of cleavage.
 23. Explain in detail the fate map of a frog.
 24. Give an account on the step-by-step process of a test tube baby.
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