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Reg. No. : .....

Name : .....

Sixth Semester B.Sc. Degree Examination, April 2024

First Degree Programme under CBCSS

Zoology

Core Course

ZO1642 : DEVELOPMENTAL BIOLOGY AND EXPERIMENTAL EMBRYOLOGY

(2019 Admission Onwards)

Time : 3 Hours Max. Marks : 80

I. Answer the following questions (In one or two sentences. **1** mark each).

1. Neurenteric canal.
2. Splanchnopleure.
3. Discoblastula.
4. Proamnion.
5. Fertilizin.
6. Indeterminate egg.
7. Morula.
8. Teratology.

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9. Yolk plug.

10. Copulation path.

(10 × 1 = 10 Marks)

II. Answer any **eight** of the following (Not to exceed one paragraph. Each carries **2** mark).

11. Centrolecithal egg.

12. Holoblastic cleavage.

13. Ultra sound scanning.

14. Pleuripotency.

15. Stem cell therapy.

16. Gerontology.

17. Hox genes.

18. Chorionic villi sampling.

19. Theory of Epigenesis.

20. Notogenesis.

21. Graffian follicle.

22. Implantation

(8 × 2 = 16 Marks)

III. Answer any **six** of the following (Not to exceed 120 words. Each question carries **4** marks).

23. Classify extra embryonic membranes in chick. Mention its functions.

24. Name the foetal membranes and mention their functions.

25. Write a note on concept of germ layers.

26. Explain cell lineage in planocera.

27. Sketch and label the fate map of frog.

28. Distinguish between rotational and spiral cleavage.

29. Briefly explain Spemann's constriction experiment.

30. What is meant by cleavage? Comment on different types of cleavages.

31. What is blastula? What are the different types of blastula.

(6 × 4 = 24 Marks)

IV. Answer any **two** of the following. **Each** carries **15** marks.

32. Explain various morphogenetic movements.

33. Explain hormonal control of amphibian metamorphosis.

34. Explain the features of 24 hour chick embryo.

35. What is parthenogenesis? What are the different types of parthenogenesis and add a note on its significance.

(2 × 15 = 30 Marks)
