B.Sc DEGREE (CBCS) EXAMINATION, APRIL 2021

Sixth Semester

CORE - ZY6CRT09 - DEVELOPMENTAL BIOLOGY

Common for B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology and Industrial Microbiology Model III Double Main, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology & B.Sc Biological Techniques and Specimen Preparation Model III

2017 Admission Onwards

DB4C0578

Time: 3 Hours   Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is HCG? What is its importance?

2. What is cortical reaction?

3. What is holoblastic cleavage?

4. Differentiate between obligatory and cyclic parthenogenesis.

5. What is invagination?

6. Define totipotency.

7. What is meant by cell differentiation?

8. Comment on the function of Chalazae in hen's egg.

9. Write down any two functions of yolk sac.

10. Define reproductive cloning.

11. Describe Foetal Alcohol Syndrome.

12. Cite any one difference between epitheliochorial and endotheliochorial placenta.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. "Ontogeny recapitulates Phylogeny". Who proposed the theory and explain?

14. Explain briefly polarity in egg. Add a note on its origin.

15. Write the different methods for the construction of fate map.

16. Explain the concept of germ layers and its derivatives.

17. Sketch and label the fate map of frog blastula..

18. Write an account on the hormonal and environmental Control of frog metamorphosis.

19. Discuss briefly about human placenta.

20. Briefly explain the various events during regeneration.

21. Explain Foetoscopy and its significance.

(6×5=30)

Part C

*Answer any **two** questions.*
*Each question carries **10** marks.*

22. Explain Oogenesis with diagrams.

23. Write an account on eye development of frog. Substantiate it with labelled diagrams.

24. Explain in detail the process of gastrulation in chick embryo.

25. Explain different methods used in contraception and birth control.

(2×10=20)