QP CODE: 24000736

24000736

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024

Sixth Semester

CORE COURSE - 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

44A55D65

Time: 3 Hours | Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Name the envelops of the human ovum.
2. What is symmetry of the egg?
3. What is spiral cleavage? Give examples.
4. What is invagination?
5. What is exogastrulation?
6. Differentiate between totipotency and pluripotency.
7. Sketch and label frog sperm.
8. Differentiate Area Pellucida and Area opaca seen in chick blastula.
9. Differentiate Area vasculosa and Area vitellina seen in chick embryo.
10. Define contragestion.
11. Define single gene mutation. Give an example.
12. Describe Fetoscopy.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Define embryology. Briefly explain the different branches in embryology.
14. Briefly explain fertilizin and antifertilizin interactions during fertilization with diagram.
15. Describe the different types of blastula.
16. Explain fate map and their construction in frog blastula.
17. Explain the role of maternal effect genes and zygotic genes in the development of drosophila.
18. Give an account on different types of stem cells.
19. Using a neatly labelled diagram explain the fate map of chick blastula.
20. Discuss briefly about human placenta.
21. Explain mammalian placenta based on the histological intimacy.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Write an essay on the events of the menstrual cycle and its hormonal regulation.
23. Explain the development of eye in frog with suitable diagrams.
24. Write an essay on the regeneration in animals.
25. Explain experiments in Embryology that showed the importance of organizer and plasticity of nuclei.

(2×10=20)