

Second Semester M.Sc. Degree Examination (CSS)-Zoology

ZY2CT08 Course VIII –DEVELOPMENTAL BIOLOGY

Time: 3Hours

Total Weight: 30

Section A -Short answer type questions

Weight -1

Answer any 10 out of 12

1. Define capacitation.
2. What is midblastula transition?
3. Comment on genomic imprinting.
4. What are realisator genes?
5. How are test tube babies produced?
6. What is environmental oestrogen?
7. Define polyphenism.
8. What are Hedgehog proteins? Why are they important?
9. What is teratogenesis?
10. Comment on potency of cells.
11. What is metaplasia?
12. Define Hox code hypothesis.

Section B-Short essay type questions

Weight -2

Answer any 5 out of 8

13. Distinguish between autonomous and conditioned specification.
14. Describe the advantages and disadvantages of parthenogenesis.
15. What are cadherins? Comment on their importance.
16. Write notes on embryonic stem cells and its applications.
17. What are the possible mechanisms of dosage compensation?
18. Describe post translational control of gene expression.
19. Discuss the Influence of yolk on cleavage.
20. Describe the histological processes that occur during regeneration.

Section C-Long essay type questions

Weight-5

Answer any 2 out of 3

21. Give an account on the genetics of axis specification of Drosophila.
22. Explain the process of mesoderm induction in vertebrates
23. Describe the surface receptors and signal transduction pathways.

