

2023
M.Sc.
First Semester
CORE – 04
ZOOLOGY
Course Code: MZOC 1.41
(Developmental Biology)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Elaborate the mechanism of developmental commitment and add a note on genomic equivalence. 10+4=14
2. Write notes on the following: 7×2=14
 - (a) Organizer-induction
 - (b) Competence

UNIT-II

3. Describe in detail about the process of spermatogenesis with a neat labelled diagram. 12+2=14
4. Give an account on the process of gastrulation in chick. Add a note on patterns of cleavage. 8+6=14

UNIT-III

5. Explain in detail about vulva formation in *C. elegans*. 14
6. Write notes on the following: 7×2=14
 - (a) Regeneration in hydra
 - (b) Development of brain in vertebrate

UNIT-IV

7. Discuss in detail about the menstrual cycle in human with a neat diagram. 12+2=14
8. Write notes on the following: 7×2=14
- (a) Adolescence
 - (b) Causes of female sterility

UNIT-V

9. Elaborate the different types of contraceptive methods for female. Add a note on vasectomy. 9+5=14
10. Explain in detail about the types of teratogenic agent and its malformation and disruption in embryonic development. 9+5=14
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