



DPA 540 (ZOO)

M.Sc. Previous Degree Examination, July/August 2011
Directorate of Distance Education
(Repeaters)
ZOOLOGY
Paper – IV : Cytogenetics and Developmental Biology

Time: 3 Hours

Max. Marks: 75/85

- Note :* 1) Answer **any two** questions from Part A, Part B and Part C is **compulsory**.
2) The question in Part – D is applicable to only **Freshers**.

PART – A

Answer **any TWO** of the following : **(2×15=30)**

1. Describe the ultrastructural organisation of plasma membrane.
2. Write an account on types of chromosomes.
3. Explain how the eukaryotic chromosomes are organised.
4. With suitable example explain linkage and its importance.

PART – B

Answer **any TWO** of the following : **(2×15=30)**

5. Explain in detail the events occur during fertilization.
6. Write an account on the metamorphosis in Amphibia.
7. Give a detail account on cleavage.
8. Discuss the role of maternal genes in early embryonic development of *Drosophila*.

P.T.O.



PART – C

9. Answer **any** THREE of the following :

(3×5=15)

- a) Phases of cell cycle
- b) Split genes
- c) VII locus
- d) Mitochondria
- e) Sex chromosome.

PART – D

(1×10=10)

10. Describe the extranuclear inheritance with suitable examples.