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BSS 553



Fourth Semester M.Sc. Degree Examination, Sept./Oct. 2022
(CBCS)
BIOSCIENCES
Developmental Biology

Time : 3 Hours

Max. Marks : 70

Write short notes on **any four** of the following :

(4×4=16)

1. a) Cellular differentiation.
- b) Fate maps.
- c) Blastula.
- d) Totipotency.
- e) Ultrastructure of egg.
- f) Leydig cells.

Write explanatory notes on **any five** of the following :

(5×6=30)

2. Previtellogenesis.
3. Structure of gastrula.
4. Chemical factors involved in fertilization.
5. Nuclear transfer experiments.
6. Gametogenesis in plant system.
7. Germ layers.
8. Homeobox concept.

Write essay on **any two** of the following :

(2×12=24)

9. Explain germ cell determinants and germ cell migration in different species.
 10. Describe the ultrastructure of mature mammalian sperm and add a note on spermatogenesis.
 11. Discuss the mechanism of gene action during cell differentiation.
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