

DECEMBER 2014

P/ID 40313/PZLJ

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Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

Each answer should not exceed 50 words.

1. Primordial germ cells
2. Graffian follicle
3. Amphimixis
4. Cell aggregation
5. Organizer
6. Limb bud
7. Transplant embryo
8. Chemodifferentiation
9. Epimorphosis
10. Ecdysis.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

Each answer should not exceed 250 words.

11. (a) Discuss the hormonal control of ovulation.

Or

(b) Explain the process of *in vitro* fertilization and its significance.

12. (a) Describe the early developmental stages of a fish.

Or

(b) Explain organ rudiment formation.

13. (a) Write notes on:

(i) Cell adhesion

(ii) Cell communication.

Or

(b) Explain the development of thymus in a mammal.

14. (a) Discuss the hormonal control of amphibian metamorphosis.

Or

- (b) Comment on neoteny with a suitable example.

15. (a) Discuss the neuro endocrine control of insect metamorphosis.

Or

- (b) Write an account on transgenics.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

Each answer should not exceed 500 words.

16. (a) Highlight the events during growth phase of oogenesis.

Or

- (b) Elaborate the biochemical events during fertilization.

17. (a) Discuss the various types of embolic movements.

Or

- (b) Describe the development of heart in a mammal.

18. (a) Give an account on the types and methodology of nuclear transplantation.

Or

- (b) Write in detail the factors causing cellular differentiation.

19. (a) List out the morphological and biochemical changes during amphibian metamorphosis.

Or

- (b) Write a detailed account on Neoplasia.

20. (a) Describe the larval metamorphosis in crustaceans.

Or

- (b) Explain in detail :

(i) Teratogenesis

(ii) Aging