

(6 pages)

Reg. No. :

Code No. : 10582 E Sub. Code : CMZO 51

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Fifth Semester

Zoology — Core

DEVELOPMENTAL ZOOLOGY

(For those who joined in July 2021-2022 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Tell the development of egg without fertilization is

- (a) polyploidy
- (b) parthenogenesis
- (c) ploidy
- (d) emboly

2. Choose the following animal with macrolecithal eggs

- (a) dipnoi
- (b) eutherian mammal
- (c) reptiles and birds
- (d) petromyzon

3. Choose the name of the movement of cells on the surface of embryo

- (a) epiboly
- (b) emboly
- (c) diffusion
- (d) invagination

4. Name the solid mass of blastomeres with appears like mulberry fruit is _____

- (a) gastrula
- (b) morula
- (c) zygote
- (d) blastocoel

5. Diffused placenta is present in _____

- (a) horse
- (b) sheep
- (c) deer
- (d) cow

6. Match the derivatives of mesoderm

- (a) skeleton (b) liver
(c) pancreas (d) lungs

7. Select the name of the regeneration bud

- (a) blastocyst (b) blastema
(c) blastula (d) gastrula

8. Select the organizer of fertilized egg

- (a) dorsal lip
(b) grey crescent
(c) chordomesoderm
(d) mesoderm

9. Choose the name of Monozygotic twins

- (a) fraternal twins
(b) siamese twins
(c) maternal twins
(d) clone

10. Choose the following that is related with Artificial Insemination in India

- (a) Sampath Kumaran
(b) Darwin
(c) Lamark
(d) Nirupama

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).
Not exceeding 1 page.

11. (a) Describe the structure of human ovum.

Or

(b) Classify the eggs based on the shell.

12. (a) Summarize the influence of yolk on cleavage.

Or

(b) Explain briefly about gastrula.

13. (a) List out the functions of placenta.

Or

(b) Explain the functions of Chorion.

14. (a) Write briefly on teratogenesis.
Or
(b) Explain the structure of organizer.
15. (a) Evaluate the process of artificial insemination.
Or
(b) Explain briefly about Aminocentesis.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

16. (a) Examine the stages of spermatogenesis.
Or
(b) Enumerate the biochemical changes involved during the Fertilization.
17. (a) Explain the holoblastic cleavage of eggs.
Or
(b) Enumerate the various embolic movements.

18. (a) Illustrate the development of mesonephric kidney.
Or
(b) Classify the placenta based on the distribution of Villi.
19. (a) Explain the types of regeneration.
Or
(b) Illustrate the nuclear transplantation in Acetabularia.
20. (a) Evaluate the causes for infertility and treatment.
Or
(b) Summarize the various birth control measures.