

(6 pages)

Reg. No. : .....

Code No. : 10604 E Sub. Code : CAZO 21

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

Second/Fourth Semester

Zoology – Allied

DEVELOPMENTAL ZOOLOGY, ECOLOGY, ANIMAL  
PHYSIOLOGY AND EVOLUTION

(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. Select the cavity present inside the blastula.  
(a) Gastrula (b) Morula  
(c) Blastocoel (d) Blastopore
2. Select the process of development of egg without fertilization.  
(a) Fertilization (b) Parthanogenesis  
(c) Vitellogenesis (d) Neogenesis

3. Identify the kind of adaptations found in the desert animal.  
(a) Impervious skin (b) Goblet cells  
(c) Pneumatophores (d) Boat shape
4. Match the Hermit crab and sea anemone with one of the following.  
(a) Mutualism (b) Parasitism  
(c) Competition (d) All the above
5. Select the another name of salivary amylase  
(a) Maltase (b) Ptyalin  
(c) Sucrase (d) Invertase
6. Select the process of break down of glycogen into glucose.  
(a) Glucogenolysis (b) Gluconeogenesis  
(c) Glycolysis (d) Glucogenesis
7. Choose the components of graafian follicle.  
(a) Follicle cells  
(b) Ovum  
(c) Follicle cells and ovum  
(d) Goblet cells

8. Choose the length of the menstrual cycle in an ideal woman.  
(a) 28 days (b) 20 days  
(c) 25 days (d) 31 days
9. Who proposed Mutation theory?  
(a) Darwin (b) De vries  
(c) Balcazer (d) Lamark
10. Choose the pre condition necessary for an adaptive radiation in birds.  
(a) Geographical barrier  
(b) Ethological barrier  
(c) Seasonal barrier  
(d) Sexual barrier

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Explain briefly about an amniocentesis.  
Or  
(b) Interpret the functions of placenta.

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12. (a) Explain the commensalism.  
Or  
(b) Write short note on Symbiosis.

13. (a) Explain the glycogenesis.  
Or

- (b) Discuss the biological importance of proteins.

14. (a) Describe the structure of nephron with neat sketch.

Or

- (b) Explain the structure of synapse.

15. (a) Differentiate warning colorations and aggressive colouration.

Or

- (b) Elaborate the Batesian mimicry.

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PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the nuclear transplantation in Acetabularia.

Or

- (b) Describe the structure of Ovum.

17. (a) Explain the biological effects of light.

Or

- (b) Discuss the parasitism and its types.

18. (a) Elaborate the steps involved in glycolysis.

Or

- (b) Discuss the transport of Carbon dioxide.

19. (a) Describe the structure of nerve cell with neat diagram.

Or

- (b) Discuss the various steps involved in the formation of Urine.

20. (a) Discuss the Darwin theory of natural selection.

Or

- (b) Explain the different types of mimicry with examples.
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