

(6 pages)

Reg. No. :

Code No. : 20604 E Sub. Code : CAZO 21

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

Second/Fourth Semester

Zoology — Allied

DEVELOPMENTAL ZOOLOGY, ECOLOGY, ANIMAL
PHYSIOLOGY AND EVOLUTION

(For those who joined in July 2021 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. _____ is a lytic enzyme released by the sperm.
(a) Hyaluronidase (b) Trypsin
(c) Helicase (d) None of these
2. How many autosomes does a human primary spermatocyte have?
(a) 34 (b) 44
(c) 54 (d) 33

3. When one organism eats another organism then it is called as _____.
(a) Commensalism
(b) Mutualism
(c) Predation
(d) None of them
4. Which of the following is an example of parasitism?
(a) Ticks (b) Fleas
(c) Mosquitoes (d) All of them
5. Name the pathway for glucose synthesis by non-carbohydrate precursor?
(a) Glycogenesis
(b) Glycolysis
(c) Gluconeogenesis
(d) Glycogenolysis
6. Name the enzyme responsible for the conversion of pyruvate to PEP?
(a) Pyruvate Carboxylase
(b) Pyruvate Carboxy Kinase
(c) Glucose 6-phosphatase
(d) Phosphofructo Kinase

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7. Nissl's granules are found in _____.
(a) Nerve cells (b) WBC
(c) RBC (d) Platelets
8. A nerve impulse jumps from one _____ to another during saltatory conduction.
(a) Synapse (b) Axon
(c) Node of Ranvier (d) Myelin Sheath
9. A species inhabiting different geographical areas is known as _____.
(a) Sympatric (b) Allopatric
(c) Siblings (d) Biospecies
10. Role of isolation in evolution is
(a) Differentiation of species
(b) Maintenance of species
(c) Evolution of species
(d) Extermination of species

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Comment on Amniocentesis.
Or
(b) Explain fate map.
12. (a) Write a notes on parasitism.
Or
(b) Discuss the biological effects of Light.
13. (a) Describe the absorption of digested Lipids.
Or
(b) Explain the transport of CO₂ in tissues.
14. (a) Describe Dialysis.
Or
(b) Write a note on nerve impulse.
15. (a) Describe the theory of Devries.
Or
(b) Explain Darwinism.

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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) Describe various types of Placenta.

Or

(b) Explain nuclear transplantation in Acetabularia.

17. (a) Explain Desert adaptations.

Or

(b) Discuss Prey-Predator relationship.

18. (a) Give the structure of Haemoglobin.

Or

(b) Explain glycolysis in detail.

19. (a) Discuss the steps in urine formation.

Or

(b) Explain conduction of nerve impulse through neuron and synapse.

20. (a) Write an essay on Mimicry.

Or

(b) Give a detailed account on adaptive radiation in birds.
