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Reg. No. :

Code No. : 30405 E Sub. Code : CAZO 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2025.

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.

Choosing the correct answer.

1. Select the cavity which is present inside the gastrula.
(a) gastrocoel (b) morula
(c) blastocoel (d) archenteron

2. Choose the chemical substance which is present on the surface of the Sperm.
(a) fertilizin (b) anti fertilizin
(c) amylase (d) lipase
3. Name the association formed between alga and fungus.
(a) lichen (b) Giant clam
(c) rhizobium (d) antibiosis
4. Choose one of the endoparasite.
(a) ticks (b) mites
(c) leech (d) Tape worm
5. Choose the name of the junction between two neurons.
(a) synapse
(b) axon
(c) dendrites
(d) Neuromuscular junction
6. Select the process of formation of glycogen.
(a) gluconeogenesis (b) glycogenolysis
(c) glycogenesis (d) None of the above

7. Select the process of the removal of the waste from the blood with the aid of machine.
- (a) ketosis (b) urolysis
(c) dialysis (d) Neurosis
8. Choose the cavity which is present in the graffian follicle.
- (a) antrum
(b) Buccal cavity
(c) archenteron
(d) Abdominal cavity
9. Select the name of the animal which exhibiting mutation.
- (a) mutants (b) mutagenesis
(c) intermediates (d) none
10. Which one resembles the krait in warning mimicry?
- (a) lycodon (b) Green snake
(c) cobra (d) python

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the process of gastrulation.
Or
(b) Differentiate the identical twins and non identical twins.
12. (a) Elaborate the structure of community.
Or
(b) Explain the mutualism with examples.
13. (a) Explain the haemoglobin and its function.
Or
(b) Elaborate the biological importance of lipid.
14. (a) Write short note on menstrual cycle.
Or
(b) Explain the conduction of nerve impulse through nerve cells.
15. (a) Explain the mutation theory of De vries.
Or
(b) Explain the Mullarian mimicry.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 600 words.

16. (a) Discuss the biochemical changes that take place during fertilization.
Or
(b) Classify the Placenta based on the Villi.
17. (a) Elaborate the biological effects of temperature.
Or
(b) Discuss the adaptations found in desert animals.
18. (a) Elaborate the role of enzymes in protein digestion.
Or
(b) Explain the steps involved in Glycogenolysis.
19. (a) Describe the structure of a neuron with neat sketch.
Or
(b) Discuss the various steps involved in the formation of Urine.

20. (a) Elaborate the different types of colouration.
Or
(b) Discuss the principles of Darwinism.