

(6 Pages)

Reg. No. :

Code No. : 20568 E Sub. Code : CAZO 21

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

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. The hormone that is released from the testes is _____
- (a) progesterone
 - (b) vasopressin
 - (c) testosterone
 - (d) oxytocin

2. _____ is an organelle that helps the sperm to penetrate the ovum.
- (a) Acrosome
 - (b) Zona pellucida
 - (c) Megalium
 - (d) None of the above
3. When one organism benefits and other is harmed, then it is known as _____
- (a) commensalism
 - (b) parasitism
 - (c) sexual reproduction
 - (d) all of them
4. One form of symbiosis is _____
- (a) Pearl
 - (b) Sea anemone
 - (c) Commensalism
 - (d) Ants
5. Name the enzyme used for branching of glycogen
- (a) Branching enzyme
 - (b) Hexokinase
 - (c) Phosphoglucomutase
 - (d) Glycogen synthase

6. What is the site for gluconeogenesis?
- (a) Liver (b) Blood
(c) Muscles (d) Brain
7. Loop of Henle is connected with
- (a) Reproduction (b) Digestion
(c) Excretion (d) Respiration
8. The blood is purified in _____
- (a) Kidney (b) Lungs
(c) Heart (d) Intestine
9. The theory of natural selection was proposed by
- (a) Lamarck (b) Darwin
(c) De vries (d) Hacekel
10. Darwinism cannot explain _____
- (a) Mimicry
(b) Adaptation
(c) Stuggle for existence
(d) Tusks of elephants

PART B — (5 × 5 = 25 marks)

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

11. (a) Describe the structure of blastocyst.
Or
(b) Explain the structure of sperm.
12. (a) Comment on symbiosis.
Or
(b) Write a note on commensalism.
13. (a) Explain the digestion of carbohydrate.
Or
(b) Write an account on glycogenesis.
14. (a) Describe the structure of ovary.
Or
(b) Explain menstrual cycle in brief.
15. (a) Briefly explain coelomation.
Or
(b) Give an account on adaptation in birds.

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) Write an essay on placenta in mammals.

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

Or

- (b) Give an account on desert adaptation.

18. (a) Explain glycolysis.

Or

- (b) Explain the exchange of O_2 and CO_2 in blood and tissues.

19. (a) Describe the structure of nephron.

Or

- (b) Explain the structure of neurons.

20. (a) Discuss the theories of evolution.

Or

- (b) Write an account on mimicry.