

(6 Pages)

Reg. No. : _____

Code No. : 20392 E Sub. Code : AMZO 53

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

Fifth Semester

Zoology — Core

ANIMAL PHYSIOLOGY AND BIOCHEMISTRY

(For those who joined in July 2020 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Sucrose is the example of
 - (a) Monosaccharides
 - (b) Disaccharides
 - (c) Trisaccharides
 - (d) Polysaccharides

7. The region between two Z line is called
 - (a) Thin filament
 - (b) Thick filament
 - (c) Sarcomere
 - (d) H zone
8. The ion that is essential for conduction of nerve impulse
 - (a) Ca^{++}
 - (b) Mg^{++}
 - (c) K^+
 - (d) Fe^{++}
9. Which one of the following hormone is secreted by Neurohypophysis?
 - (a) Growth Hormone
 - (b) Thyroid Stimulating Hormone
 - (c) Vasopressin
 - (d) Lutheinizng Hormone
10. The Hormone secreted by male reproductive organ
 - (a) Progesterone
 - (b) Oestrogen
 - (c) Testosterone
 - (d) Oxytocin

2. Conjugated protein is a
 - (a) Holoprotein
 - (b) Prosthetic group
 - (c) Apoprotein
 - (d) Prolamine
3. The removal of amino group from the amino acid is called
 - (a) Transamination
 - (b) Deamination
 - (c) Decarboxylation
 - (d) Methylation
4. The process by which insoluble lipids are converted into a milky liquid is called
 - (a) Coagulation
 - (b) Absorption
 - (c) Emulsification
 - (d) Digestion
5. The relaxation process of auricle and ventricle is called
 - (a) diastole
 - (b) systole
 - (c) cardiac cycle
 - (d) cardiac rhythm
6. The functional unit of kidney is
 - (a) Neuron
 - (b) Nephron
 - (c) Glomerulus
 - (d) Henles loop

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 and functions of glucose.
Or
(b) Describe the structure of amino acid.
12. (a) Describe the mechanism of enzymes.
Or
(b) Explain β -oxidation in details.
13. (a) Explain the origin and conduction of heart beat.
Or
(b) Write short note on ECG.
14. (a) Explain the mechanism of muscle contraction.
Or
(b) Explain the structure of neurons with neat labelled diagram.

15. (a) Write short note about Islets of Langerhans.

Or

(b) Write different phases of menstrual cycle.

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 classification of protein with examples.

Or

(b) Explain the classification of lipid.

17. (a) Write an essay on the role of enzymes in protein digestion.

Or

(b) Explain the Kerbs cycle.

18. (a) Give an account of transport of respiratory gases in blood.

Or

(b) Write an essay on mechanism of urine formation.

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19. (a) Explain the properties of skeletal muscles.

Or

(b) Explain different types of impulse conduction through nerves.

20. (a) "The pituitary gland is the master glands" - Justify.

Or

(b) Explain the role of Hormonal control in reproductive cycle.

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