

(6 pages)

Reg. No. :

Code No. : 10360 E Sub. Code : EMZO 51

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

Fifth Semester

Zoology — Core

Main — ANIMAL PHYSIOLOGY AND
BIOCHEMISTRY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The enzymes responsible for the digestion of protein are called
- (a) Lipases (b) Carbohydrases
(c) Proteases (d) Transferases

2. Which of the following is green coloured respiratory pigment?
- (a) Haemoglobin (b) Haemocyanin
(c) Echinochrome (d) Chlorocruorin
3. The normal blood pressure of a health man is
- (a) 80/120 mmHg (b) 220/80 mmHg
(c) 120/80 mmHg (d) 130/70 mmHg
4. When water is scarce waste products are excreted as
- (a) Nitrogen (b) Ammonia
(c) Uric acid (d) Urea
5. Muscle fatigue occurs due to the accumulation of
- (a) Carbon dioxide (b) Oxygen
(c) Creatine (d) Lactic acid
6. The unit of nervous system is
- (a) Nephron (b) Neuron
(c) Cyton (d) Axon

7. Islets of Langerhans are located in
 (a) Liver (b) Pancreas
 (c) Spleen (d) Stomach
8. The pigment present in the rod cells of eye
 (a) Hemocyanin
 (b) Iodopsin
 (c) Rodopsin
 (d) Porpyropsin
9. Biosynthesis of glycogen from glucose is called
 (a) Glycogenesis
 (b) Glycolysis
 (c) Glycogenolysis
 (d) Kreb cycle
10. The monosaccharides commonly referred as fruit sugar
 (a) Glucose (b) Fructose
 (c) Mannose (d) Galactose

PART B — (5 × 5 = 25 marks)

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

11. (a) Describe the role of enzymes in protein digestion.
 Or
 (b) Explain the structure of hemoglobin with diagram.
12. (a) Describe the different components of ECG.
 Or
 (b) Describe the ultra structure of nephron.
13. (a) Explain the properties of skeletal muscles.
 Or
 (b) Explain the structure of neuron.
14. (a) Describe the structure of pituitary gland.
 Or
 (b) Explain the structure of mammalian eye with diagram.

15. (a) Describe the structure and functions of glucose.

Or

(b) Explain β -oxidation in detail.

PART C — (5 × 8 = 40 marks)

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

16. (a) Write an account on fat soluble vitamins.

Or

(b) Briefly explain the transport of respiratory gases in blood.

17. (a) Explain the mechanism of blood clotting.

Or

(b) Elaborate the mechanism of urine formation in man.

18. (a) Explain the mechanism of muscle contraction.

Or

(b) Write an essay on conduction of nerve impulses.

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19. (a) Describe thyroid gland and its secretions.

Or

(b) Explain the structure of ear and the mechanism of hearing.

20. (a) Write the sequential steps involved in Krebs cycle.

Or

(b) Explain the classification of carbohydrates with example.

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