

(6 pages)

Reg. No. :

**Code No. : 10702 E Sub. Code : JMZO 51/
SMZO 51**

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2020.

Fifth Semester

Zoology – Main

ANIMAL PHYSIOLOGY

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The process of circulation of blood was first reported by
 - (a) Kuhn
 - (b) Landstainer
 - (c) William Harvey
 - (d) Edward

2. Identify the simple lipids from the following
- (a) Fats
 - (b) Carotene
 - (c) Lecithin
 - (d) All of these
3. Digestion of protein occurs in the digestive system of
- (a) Buccal cavity
 - (b) Stomach
 - (c) Intestine
 - (d) Stomach and intestine
4. One of the following is anabolic process
- (a) Glycolysis
 - (b) Glycogenesis
 - (c) Krebs's cycle
 - (d) Glycogenolysis
5. When water is scarce nitrogen is excreted in the form of
- (a) Urea
 - (b) Ammonia
 - (c) Uric acid
 - (d) None of these
6. Maximum reabsorption of Na^+ occurs in the region of nephron
- (a) Proximal tubule
 - (b) Distal tubule
 - (c) Loop of Henle
 - (d) Collecting tubule

7. The basic unit of myofibril is
(a) Micromere (b) Sarcomere
(c) Myomere (d) Mesomere
8. The functional region when one neuron ends and the other begins is
(a) Syrapse (b) Axon
(c) Dendron (d) Node
9. The maintenance of pregnancy is under the control of hormone
(a) Prolactin (b) Progestrone
(c) Estrogen (d) Adrenalin
10. The hormone secreted by pass intermedia is
(a) ADH (b) ACTH
(c) LH (d) MSH

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain about essential amino acids and comment on their biological importances.
- Or
- (b) Classify carbohydrates, give their characteristics with example.

12. (a) Classify nitrogenous wastes and comment on their properties.

Or

- (b) What do you mean by respiratory quotient? Mention the values R.Q. for major food stuffs.

13. (a) Write down the classification of enzymes and give an example.

Or

- (b) Explain the process of Deamination and transamination with example.

14. (a) What is NMJ? Explain its structure and features.

Or

- (b) Write an account on Neuro transmitters and their properties.

15. (a) Describe the structure of pituitary with neat sketch.

Or

- (b) Describe the structure and hormones of adrenal gland.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the structure and functions of Lecithin and Cephalin.

Or

- (b) Classify prostaglandins and discuss their functions.

17. (a) With suitable example explain the steps involved in β -oxidation of fatty acid and write its energetics.

Or

- (b) Illustrate and explain the mechanism of enzyme action.

18. (a) Explain how respiratory gases are transported and exchanged.

Or

- (b) Illustrate and explain the physiology of urine formation.

19. (a) Explain the ultra structure of skeletal muscle and enlist the properties of muscle.

Or

- (b) Write short notes on :
- (i) Saltatory conduction
 - (ii) Types of neurons.
20. (a) Highlight the structure, hormones and function of Islets of Langerhans.

Or

- (b) Summarize the structure and functions of Testis and Ovary.
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