

(7 pages)

Reg. No. :

Code No. : 7878

Sub. Code : WZOM 32

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Third Semester

Zoology — Core

ANIMAL PHYSIOLOGY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. Where in the body does protein digestion begin?
(a) Stomach (b) Mouth
(c) Intestine (d) None of the above
2. The deficiency marasmus in children is caused due to the deficiency of
(a) Fat (b) Carbohydrate
(c) Protein (d) Vitamins

3. Which of the following statement is correct about small intestine?
(a) It is highly coiled and is about 7.5 meters long
(b) It receives secretions from liver and pancreas
(c) Its wall secretes digestive juices
(d) All the above
4. The pace-maker of the heart is
(a) Bundle of his (b) AV node
(c) SA node (d) Purkinje fibre
5. Blood flows through sinuses in
(a) Open circulation
(b) Closed circulation
(c) Systemic circulation
(d) Portal circulation
6. If the blood group of an individual is A then the antibody present is ————
(a) Anti B antibodies (b) Anti A antibodies
(c) Anti O antibodies (d) Anti OA antibodies

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7. In which part of the respiratory system, gaseous exchange takes place
- (a) Alveoli (b) Pharynx
(c) Larynx (d) Trachea
8. The maximum volume of air contained in the lung by a full forced inhalation is called _____
- (a) Tidal volume (b) Vital capacity
(c) Ventilation rate (d) Total lung capacity
9. This is the functional unit of the kidney
- (a) Hilum (b) Neurons
(c) Nephrons (d) Medulla
10. Branched nerve fibers that convey impulses toward the cell body of a neuron are called _____
- (a) Axons (b) Dendrites
(c) Axon collaterals (d) Axon terminals
11. In which portion of the spinal cord the interneurons lie?
- (a) Cervical enlargement
(b) Lumbar enlargement
(c) Gray matter
(d) White matter

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12. Smooth muscle is responsible for
- (a) Voluntary movements of body
(b) Carries out most of the involuntary processes such as digestion as well as pumping the blood through arteries
(c) Control of all the involuntary movements
(d) None of the above
13. On which organ of the human body are adrenal glands located?
- (a) Heart (b) Kidney
(c) Lungs (d) Brain
14. FSH and LH are collectively known as _____
- (a) Neurohormones
(b) Antistress hormones
(c) Gonadotrophic hormone
(d) Emergency hormone
15. Which one of the following is NOT true in the process of acclimatization to high altitude?
- (a) Respiratory alkalosis
(b) Increased 2, 3 - DPG in RBC
(c) Rise in pH of cerebrospinal fluid
(d) Increased cytochrome oxidase in tissues.

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PART B — (5 × 4 = 20 marks)

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

16. (a) Elaborate the mechanical process in digestion in human.

Or

- (b) Define balanced diet and enlist the essential components of balanced diet.

17. (a) Define Cardiac cycle and explain the its different phases.

Or

- (b) What is an electrocardiogram test? What are the three components of ECG? What does an abnormal ECG mean?

18. (a) Give an overview of the respiratory pigments.

Or

- (b) What are common causes of kidney disease?

19. (a) Comment on the following :

- (i) Hypothalamus
- (ii) White matter and gray matter.

Or

- (b) Write a brief note on the following :

- (i) Retina
- (ii) Cochlea.

20. (a) Discuss the types endocrine disorders.

Or

- (b) State the different dimensions of stress and stressors.

PART C — (5 × 8 = 40 marks)

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

21. (a) Describe the role of enzymes in the digestion of carbohydrate, protein and fat in different parts of human digestive system.

Or

- (b) Illustrate the structures and functions of the human digestive system in detail with a neat diagram.

22. (a) Analyse the composition of blood in detail.

Or

- (b) What do you know about the cardiovascular system?



23. (a) Explain the structure and function of human lung.

Or

- (b) Illustrate the structure of nephron and explain the process of urine formation.

24. (a) Explain the structure and function of neuron.

Or

- (b) Explain the composition and ultra structure of skeletal muscle.

25. (a) Explain the structure and function of Pancrease.

Or

- (b) Define thermoregulation and explain the mechanism of thermoregulation.
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