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SUBJECT CODE NO: - B-2201
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. Pattern - 2013 (S.Y SEM IV)
Examination November / December 2025
Zoology Paper- XI Animal Physiology (Special Emphasis on Mammals)

[Time: 1:30 Hours]**[Max. Marks: 50]**

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) Illustrate your answer with a suitable labelled diagram

Q1 What is Respiration? Explain the respiratory system of humans

20

OR

Describe the working of the Human heart.

Q2 Explain the structure of the gonads.

20

OR

Write short Notes on any four of the following:

- a) Mechanism of blood clotting.
- b) Transport of gases.
- c) Functions of Blood
- d) Neurotransmitters
- e) Role of sex hormones in reproduction
- f) Muscle contraction

Q3 Multiple choice questions:

10

1. Salivary amylase initiates digestion of:
 - a) Proteins b) Fats c) Carbohydrates d) Nucleic acids
2. Parietal cells in the stomach secrete:
 - a) Pepsinogen b) Mucus c) Hydrochloric acid d) Bicarbonate
3. Hemoglobin's oxygen affinity decreases when:
 - a) pH increases b) CO₂ decreases
 - c) Temperature increases d) Oxygen concentration rises
4. External respiration refers to:
 - a) Cellular ATP production b) Alveolar-capillary gas exchange
 - c) Oxygen utilization in tissues d) CO₂ transport in blood

5. The atrioventricular valve on the left side is the:
a) Tricuspid valve b) Pulmonary valve c) Mitral valve d) Aortic valve
6. The counter current multiplier system is crucial for;
a) Filtration rate b) Water reabsorption regulation
c) Tubular secretion d) Blood pressure
7. Neurotransmitters are released from synaptic:
a) Dendrites b) Axon hillock c) Vesicles d) Myelin sheath
8. The sliding filament theory involves interaction between:
a) Actin and myosin b) Troponin and tropomyosin
c) ATP and calcium d) Sarcolemma and T-tubules
9. Spermatogenesis occurs in the:
a) Epididymis b) Seminiferous tubules
c) Vas deferens d) Prostate gland
10. The LH surge triggers:
a) Follicle development b) Ovulation c) Endometrial shedding d) Implantation

