

2025

(FYUGP)

(5th Semester)

ZOOLOGY

(MINOR)

Paper Code : ZOO/M5(T)

(**Animal Physiology—II : Life Sustaining System**)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

*The figures in the margin indicate full marks
for the questions*

1. Describe the process of lipid digestion and absorption in human. 5+5=10

Or

Explain the various enzymes in gastrointestinal tract. 10

2. Describe the different types of respiratory pigments found in animals. 10

Or

With the help of a labelled diagram, explain the oxygen dissociation curve of haemoglobin. 10

3. Describe the mechanisms of urine formation in humans. 10

Or

Discuss the hormonal regulation of kidney functions. 10

4. Explain the mechanism of blood clotting system. 10

Or

Write an essay on Rh blood group system and its clinical importance. 10

5. Describe the origin and conduction of cardiac impulses in mammals. 10

Or

Describe the principle of electrocardiogram (ECG). Explain the origin and significance of the components in an ECG wave. 2+8=10

Subject Code : Bs/ZOO/M5(T)

To be filled in by the Candidate

BA / BSc / BCom / BBA / BCA
5th Semester End Term
Examination, 2025 (FYUGP)

Subject

Paper

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
2. This paper should be **ANSWERED FIRST** and submitted within 1 (one) Hour of the commencement of the Examination.
3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

Signature of
Scrutiniser(s)

Signature of
Examiner(s)

Booklet No. **A**

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Date Stamp

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Candidate

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5th Semester End Term
Examination, 2025 (FYUGP)

Roll No.

Regn. No.

Subject

Paper

DESCRIPTIVE TYPE

Booklet No. B

Signature of
Invigilator(s)

Bs/ZOO/M5(T)

2 0 2 5

(FYUGP)

(5th Semester)

ZOOLOGY

(MINOR)

Paper Code : ZOO/M5(T)

(Animal Physiology—II : Life Sustaining System)

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

I. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×15=15

1. The end products of carbohydrate digestion are

- (a) amino acids ()**
- (b) polysaccharides ()**
- (c) monosaccharides ()**
- (d) nucleotides ()**

2. The main site of protein digestion is

- (a) mouth ()
- (b) large intestine ()
- (c) stomach ()
- (d) small intestine ()

3. Vitamin B₁₂ absorption requires

- (a) Pepsin ()
- (b) intrinsic factor ()
- (c) Lipase ()
- (d) extrinsic factor ()

4. The partial pressure of oxygen in alveolar air is about

- (a) 60 mmHg ()
- (b) 40 mmHg ()
- (c) 120 mmHg ()
- (d) 104 mmHg ()

5. The steep portion of the oxyhaemoglobin dissociation curve represents

- (a) unloading of O₂ in tissues ()
- (b) loading of O₂ in lungs ()
- (c) CO₂ transport ()
- (d) effect of pH ()

6. The normal tidal volume in adults is about

(a) 1000 ml ()

(b) 500 ml ()

(c) 250 ml ()

(d) 100 ml ()

7. Ultrafiltration occurs in

(a) collecting duct ()

(b) distal convoluted tubule ()

(c) loop of Henle ()

(d) Bowman's capsule ()

8. Which hormone increases permeability of the distal tubule and collecting duct to water?

(a) Aldosterone ()

(b) ADH ()

(c) Cortisol ()

(d) Calcitonin ()

9. Diabetes insipidus occurs due to deficiency of

- (a) ADH ()
- (b) renin ()
- (c) insulin ()
- (d) aldosterone ()

10. Plasma proteins include

- (a) collagen, elastin, actin ()
- (b) myosin, keratin, fibrin ()
- (c) albumin, globulin, fibrinogen ()
- (d) globin, haem, myoglobin ()

11. Erythroblastosis fetalis occurs due to incompatibility of

- (a) ABO blood groups ()
- (b) Rh factor ()
- (c) MHC antigens ()
- (d) platelet antigens ()

12. The clotting factor absent in haemophilia A is

- (a) factor VIII ()
- (b) factor IX ()
- (c) factor X ()
- (d) factor XII ()

13. The wall of the human heart is made up of _____.

- (a) epicardium, myocardium, endocardium ()
- (b) epithelium, mesothelium, pericardium ()
- (c) sarcolemma, endothelium, perimysium ()
- (d) None of the above ()

14. ECG P-wave corresponds to

- (a) ventricular depolarization ()
- (b) atrial repolarization ()
- (c) atrial depolarization ()
- (d) ventricular repolarization ()

15. Purkinje fibres are found in

- (a) atria ()
- (b) ventricles ()
- (c) SA node ()
- (d) AV node ()

II. Write short notes on any *five* of the following : $2 \times 5 = 10$

1. Absorption of water and electrolytes

2. Bohr effect

3. Role of ADH in water reabsorption

4. ABO blood group system

5. Haemoglobin

6. Coronary circulation

7. Hypertension

8. Haldane effect
