

Total number of printed pages—4

63(FY) SEM-4/MIN/ZOOMIN2024

2025

ZOOLOGY

(Minor)

Paper : ZOOMIN2024

(Physiology and Biochemistry)

Full Marks : 50

Pass Marks : 20

Time : Two hours

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

1. Choose the correct answer : 1×5=5

(a) Sucrose is the example of :

(i) Monosaccharides

(ii) Trisaccharides

(iii) Disaccharides

(iv) Polysaccharides

(b) The relaxation process of auricle and ventricle is called

- (i) Diastole
- (ii) Systole
- (iii) Cardiac cycle
- (iv) Cardiac rhythm

(c) The functional unit of kidney is—

- (i) Neuron
- (ii) Nephron
- (iii) Glomerulus
- (iv) Henle's loop

(d) Conjugated protein is a—

- (i) Holoprotein
- (ii) Prosthetic protein
- (iii) Apoprotein
- (iv) Prolamine

(e) The tiny air sacs present in human lungs

- (i) Alveoli
- (ii) Purkinje
- (iii) Bronchioles
- (iv) Valve

2. Answer the following questions : **(any five)**
2×5=10

- (a) What is essential amino acid?
- (b) State the function of henle's loop.
- (c) What are monosaccharides? Give example.
- (d) Define Rh factor.
- (e) Define nephron and its parts.
- (f) Define anticoagulants, name *two* anticoagulants.
- (g) What is Haemostasis?

3. Answer the following questions : **(any five)**

5×5=25

(a) Describe the mechanism of breathing.

(b) Describe the mechanism of blood clotting.

(c) Describe the process of urine formation.

(d) Explain the heart mechanism of beats.

(e) Describe the composition and functions of bile.

(f) What is cardiac cycle? Describe the different stages. 2+3=5

(g) Explain the role of glomerulus of nephron in the formation of urine.

(h) Write a note on functions of haemoglobin.

4. Answer the following questions : **(any one)**

10×1=10

(a) Write a note on ABO blood group and describe the functions of blood.

(b) Describe the digestion and absorption of carbohydrates.