

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 :  $1 \times 5 = 5$

(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.