

Total No. of Printed Pages—3

4 SEM TDC ZOOH (CBCS) C 9

2 0 2 2

(June/July)

ZOOLOGY

(Core)

Paper : C-9

(Animal Physiology : Life Sustaining Systems)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Fill in the blanks with appropriate words : 1×5=5

- (a) Renin helps in digestion of _____.
- (b) α -units of haemoglobin are composed of _____ of amino acids.
- (c) The basic functional unit of kidney is _____.
- (d) _____ prevents the process of clotting of blood.
- (e) Major portion of CO_2 is transported as _____ in human body.

2. Write briefly on any *two* of the following : $4 \times 2 = 8$

- (a) Carbon monoxide poisoning
- (b) Tubular reabsorption
- (c) Cardiac cycle
- (d) Regulation of heartbeat

3. Answer any *two* of the following : $4 \times 2 = 8$

- (a) Write a note on hormonal control of gastrointestinal tract.
- (b) Write about the different components of blood and their functions.
- (c) Write about the regulation of acid-base balance.

Or

What do you mean by absorption? Describe the process of absorption of carbohydrate and proteins.

$2+3+3=8$

4. Describe about the oxygen dissociation curves and factors influencing it. $4+4=8$

Or

Describe the mechanism of O_2 and CO_2 transport by blood. What do you mean by respiratory pigment?

$6+2=8$

(3)

5. Describe the origin and conduction of cardiac impulse. What is coronary circulation? 6+2=8

Or

Write about the Frank-Starling law of the Heart. Describe the nervous and chemical regulation of heart rate. 2+3+3=8

6. Answer briefly the following : 4×2=8

(a) Write a note on structure and functions of haemoglobin.

(b) Draw and describe the histology of lung.

Or

Write about the process of clotting of blood. 8

7. Illustrate with a suitable diagram, the structure of a nephron. Discuss about the mechanism of urine formation. 4+4=8

Or

What is the functional unit of kidney? Discuss about the regulation of acid-base balance. 1+7=8

★★★