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**4 SEM TDC ZOOH (CBCS) C 9**

**2 0 2 3**

( May/June )

**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. (a) Fill in the blanks : 1×5=5
- (i) Salivary amylase converts starch into \_\_\_\_.
  - (ii) \_\_\_\_ prevents the process of blood clotting.
  - (iii) Oxyhaemoglobin after giving up its oxygen is called \_\_\_\_.
  - (iv) The \_\_\_\_ prevents the entry of food into the respiratory tract.
  - (v) Deficiency of oxygen in body tissue is called \_\_\_\_ condition.

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*( Turn Over )*

( 2 )

(b) Write short notes on (any two):  $4 \times 2 = 8$

(i) Urine formation

(ii) Regulation of water balance

(iii) Nephron

2. Describe the chemical digestion of carbohydrate and protein in the mammalian digestive tract.  $4 + 4 = 8$

Or

Describe briefly the mechanism of hormonal control of secretion of enzymes in gastrointestinal tract. 8

3. What is carbon monoxide poisoning? Write a note on chemical control of respiration.  $3 + 5 = 8$

Or

Draw a labelled diagram of trachea. Write a note on respiratory pigments.  $4 + 4 = 8$

4. Describe the structure of mammalian heart with a labelled diagram. What is ECG?  $6 + 2 = 8$

Or

Discuss about nervous and chemical regulation of heart rate. What is blood pressure? Distinguish blood pressure from pulse pressure.  $4 + 2 + 2 = 8$

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( Continued )

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5. Write about the different components of blood and their functions. Write a note on structure and functions of haemoglobin.  $3 + 5 = 8$

Or

Define hemostasis. Write a note on the process of blood coagulation.  $1 + 7 = 8$

6. What is Rh factor? Give an account of different blood groups.  $2 + 6 = 8$

Or

Discuss the Kallikrein-Kininogen system. What is the difference between complement system and fibrinolytic system?  $4 + 4 = 8$

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