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( November )

ZOOLOGY

( Major )

Course : 503

( **Animal Physiology** )

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

1. (a) Fill in the blanks : 1×5=5
- (i) The \_\_\_\_\_ prevents the entry of food into the respiratory tract.
  - (ii) The junction of two neurons is called \_\_\_\_\_.
  - (iii) Morphine, used as an analgesic, is obtained from \_\_\_\_\_.
  - (iv) The rod cells contain a purple colour pigment called \_\_\_\_\_.
  - (v) Deficiency of oxygen in body tissues is called \_\_\_\_\_ condition.

( 2 )

- (b) Write short notes on the following  
(any two) :  $5 \times 2 = 10$
- (i) Molecular composition of myofilament
  - (ii) The sliding filament theory
  - (iii) Renal failure
  - (iv) Urine formation

2. What do you mean by absorption? Describe the physiology of absorption of carbohydrate, proteins and fats in human being.  $2+9=11$

Or

What is digestion? Write about the digestive secretions and their regulation.  $2+9=11$

3. What is the functional unit of kidney? Discuss the functional architecture of mammalian kidney with a suitable diagram.  $1+7+3=11$

Or

What is nerve impulse? Give an account of the origin and propagation of nerve impulse in a nerve fibre with a suitable diagram.  $1+8+2=11$

( 3 )

4. What do you mean by circulation? Describe the origin and conduction of heartbeat in man with a diagram.  $1+7+3=11$

Or

What do you mean by carbon monoxide poisoning? Write a note on the regulation of respiration.  $4+7=11$

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