

2015

(5th Semester)

ZOOLOGY

Paper : ZL-VI

(Animal Physiology)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

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

1. What do you mean by digestion and absorption of food? Write an account on the mechanism of digestion of proteins. **2+5=7**

Or

Define internal and external respirations.
Describe the mechanism of lung respiration.

2+5=7

G16/144a

(Turn Over)

2. What is cardiac cycle? Explain the process of cardiac cycle with suitable illustration. 1+6=7

Or

Write a detailed account of ABO blood grouping system. 7

3. What is micturition? Write an account of nervous control of micturition. 1+6=7

Or

Define the term osmoregulation. Write a detailed account of osmoregulatory process in terrestrial vertebrates. 1+6=7

4. Describe the mechanism of muscle contraction. 7

Or

What do you mean by muscle fatigue? Write a note on the types of muscle contractions. 1+6=7

5. Mention the different types of neuron. Write an account of resting potential and action potential of a neuron. 2+5=7

Or

What are neurotransmitters? Mention the major neurotransmitters and describe the process of synaptic transmission. 1+6=7

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(PART : A—OBJECTIVE)

(Marks : 20)

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SECTION—A

(Marks : 5)

Put a Tick (✓) mark against the correct answer in the brackets provided : **1×5=5**

1. Parietal cells of gastric gland secrete

(a) hydrochloric acid ()

(b) pepsinogen ()

(c) mucous ()

(d) amylase ()

(2)

2. Total amino acid composition of single haemoglobin molecule is

(a) 575 ()

(b) 745 ()

(c) 475 ()

(d) 574 ()

3. The main excretory product of marine invertebrates and freshwater animals is

(a) urea ()

(b) uric acid ()

(c) ammonia ()

(d) ammonium hydroxide ()

4. The contractile protein that forms the thick filaments in muscle fibers is

(a) actin ()

(b) myosin ()

(c) myofibril ()

(d) myofilament ()

V/Zoo (vi)/144

(3)

5. A typical neuron in a vertebrate consists of four major regions

- (a) a cell body, dendrites, an axon, and synaptic terminals ()
- (b) a cell body, dendrites, an axon, and Schwann cell ()
- (c) a cell body, dendrites, an axon, and internode ()
- (d) a cell body, dendrites, an axon, and myelin sheath ()

(4)

SECTION—B

(Marks : 15)

Write short notes on the following :

3-3-13

1. Cutaneous respiration

V/Zoo (VI)/144

(5)

2. Neurogenic heart and myogenic heart

(6)

3. Role of ADH in urine formation

V/Zoo (vi)/144

4. Types of muscle

(8)

8. Structure of typical neuron
