

B.Sc. Part-III (Semester-V) Examination

ZOOLOGY

(Animal Physiology and Economics Zoology)

Time : Three Hours]

[Maximum Marks : 80

N.B. :— (1) All questions are compulsory.

(2) Question No. 1 carries 8 marks and remaining six questions carry 12 marks each.

(3) Illustrate your answer with suitable diagrams wherever necessary.

1. (A) Fill in the blanks :

(i) _____ is a copper containing respiratory pigment.

(ii) The smallest contractile unit of a skeletal muscle fibre is _____.

(iii) Junction of two nerve cells is called _____.

(iv) Organ of attachment between foetal and maternal uterine tissue is called _____. 2

(B) Choose correct alternatives from the following :

(v) Cod Liver oil is rich source of vitamin _____.

(a) A and D

(b) A and C

(c) A and B

(d) A and E

½

(vi) The process of killing pupa inside the cocoon is called _____.

(a) Stifling

(b) Reeling

(c) Rearing

(d) Spinning

½

(vii) Duration of Cardiac cycle in man is _____.

(a) 0.08 seconds

(b) 8 seconds

(c) 0.8 seconds

(d) 80 seconds

½

(viii) Positive after potential is also called as _____.

(a) Reverse potential

(b) Polarisation

(c) Hyperpolarization

(d) None of these

½

(C) Answer in **one** sentence :

- (ix) What is piloerection ?
- (x) What is isotonic contraction ?
- (xi) What is polyculture ?
- (xii) Which vein carries oxygenated blood ?

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2. Attempt the following :

- (a) Chlorocruorin
- (b) Transport of CO₂
- (c) Granulocytes.

OR

- (d) ABO-blood group system
- (e) Internal structure of heart (Diagram only)
- (f) Haemoglobin.

12

3. Describe physical and chemical changes during muscle contraction.

OR

Describe E. M. structure of striated muscle fibre.

12

4. Describe the following :

- (g) Islets of Langerhans
- (h) Neuro transmitters (any **two**)
- (i) Hormones of Neurohypophysis.

OR

- (j) E. M. structure of Neuron (Diagram only)
- (k) Saltatory conduction
- (l) Cretinism.

12

5. Describe estrous cycle.

OR

Describe thermoregulation in homeotherms.

12

6. Attempt the following :

- (m) Praying mantis
- (n) Stifling and reeling
- (o) Economic importance of rodents

OR

- (p) Damsel bug
- (q) Pest of sugarcane
- (r) Modern bee hive.

12

7. Describe the following :

- (s) Nursery pond
- (t) Hypophysation
- (u) Fish liver oil and fish body oil.

OR

- (v) Hatching happas
- (w) Fish leather
- (x) Cage culture.

12

