

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

ZOOLOGY

(Animal Physiology and Economics Zoology)

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) **ALL** questions are compulsory.(2) Question No. 1 carries **8** marks and remaining **SIX** questions carry **12** marks each.

(3) Illustrate your answers with suitable diagram wherever necessary.

1. (a) Fill in the blanks : 2
- (i) Calcitonin hormone is released from _____.
- (ii) Glycine is _____ neurotransmitter.
- (iii) Maximum transportation of carbondioxide through blood is in the form of _____.
- (iv) *Pectinophora gossypiella* is a native of _____.
- (b) Choose correct alternative from the following : 2
- (v) *Dysdercus cingulatus* is a pest of _____.
- (a) Jowar (b) Sugarcane
- (c) Cotton (d) Wheat
- (vi) Haemoglobin is a protein composed of _____ polypeptide chains.
- (a) Three (b) Four
- (c) Five (d) Six
- (vii) Rohu is a common name of _____.
- (a) *Scoliodon* (b) *Catla catla*
- (c) *Labeo rohita* (d) *Cirrhinus mrigala*
- (viii) Breathing is controlled by _____ of Brain.
- (a) Cerebrum (b) Cerebellum
- (c) Pons (d) Medula oblongata

- (e) Answer in **ONE** sentence : 4
(ix) What is vital capacity ?
(x) Which specific neurotransmitter released by somatic motor neuron ?
(xi) What is monoculture ?
(xii) What is sericulture ?
2. Explain the following : 12
(a) Rh factor
(b) Haemoglobin
(c) Pace maker.
- OR**
- (d) Cardiac cycle (Graphic chart only)
(e) Transport of O₂
(f) Blood plasma.
3. Describe the following : 12
(g) Isometric and Isotonic contraction
(h) Types of muscles
(i) Fatigue.
- OR**
- (j) Sarcomere
(k) Physical changes during muscle contraction
(l) Muscle twitch.
4. Explain the following : 12
(m) Dopamine
(n) Thyroid gland hormone
(o) Gigantism.
- OR**
- (p) Serotonin
(q) Ilets of Langerhan's
(r) *Osteoporosis*.

5. Describe menstrual cycle. 12

OR

Describe osmoregulation in aquatic animals.

6. Give an account of sericulture. -12

OR

Describe life-cycle, damage and control of any two pests of Sugarcane.

7. Attempt the following : 12

(s) Fertilizers used for fish development

(t) Rearing pond

(u) Fish leather.

OR

(v) Modern drugs used in fish breeding

(w) Fish manure

(x) Pen culture.

