

**B.Sc. Part-III Semester-V Examination**

**ZOOLOGY**

**ANIMAL PHYSIOLOGY AND ECONOMIC 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 answers with suitable diagram wherever necessary.

1. (a) Fill in the blanks :

(i) All vertebrates have a \_\_\_\_\_ type of circulatory system.

(ii) In the peripheral nervous system myelin sheath is produced by \_\_\_\_\_.

(iii) Zoological name of the pink bollworm is \_\_\_\_\_.

(iv) *Antheraea mylitta* is a \_\_\_\_\_ silkworm moth. 2

(b) Choose correct alternative from the following :

(v) Hormones are the secretion of \_\_\_\_\_ gland.

(a) Endocrine

(b) Paracrine

(c) Autocrine

(d) Exocrine

(vi) \_\_\_\_\_ is the pest of sugarcane.

(a) *Dysdercus*

(b) *Contarinia*

(c) *Earias*

(d) *Pyrilla*

(vii) Testosterone is responsible for the growth of \_\_\_\_\_.

(a) Prostate gland

(b) Seminal vesicle

(c) Pubic hairs

(d) All the above

(viii) Cipla is a common name of \_\_\_\_\_.

(a) *Labeo rohita*

(b) *Catla catla*

(c) *Rita rita*

(d) *Cyprinus carpio* 2

(c) Answer in ONE sentence :

(ix) What is apiculture ?

(x) What is node of Ranvier ?

(xi) What is blood plasma ?

(xii) What is function of testosterone ? 4

2. Explain the following :

(a) Haemoglobin

- (b) A,B,O system of blood groups  
(c) Pace maker 12
- OR**
- (d) Haemocyanin  
(e) Functions of blood (any five)  
(f) Auriculo ventricular valves. 12
3. Describe the following :
- (g) Single muscle twitch  
(h) Rigor mortis  
(i) Chemical composition of striated muscle. 12
- OR**
- (j) Tetanus  
(k) Neuromuscular junction (diagram only)  
(l) Fatigue. 12
4. Explain the following :
- (m) E.M. structure of neuron (diagram only)  
(n) Pituitary gland ; major hormones names only  
(o) Cretinism 12
- OR**
- (p) Resting potential  
(q) Hormones of adrenal medulla  
(r) Dwarfism 12
5. Describe estus cycle.
- OR**
- Describe thermo regulation in poikilotherm. 12
6. Give an account of Sericulture.
- OR**
- Describe life-cycle, damage and control of any two pests of cotton. 12
7. Attempt the following :
- (s) Nursery pond  
(t) Fish manure and fish leather  
(u) Pollyculture 12
- OR**
- (v) Rearing pond  
(w) Induced breeding  
(x) Fish liver oil. 12