

Roll No. ....

(01/22-II)

**5207**

**B.Sc. EXAMINATION**

(Third Semester)

**ZOOLOGY**

Paper II

Mammalian Physiology

*Time : Three Hours*

*Maximum Marks : 40*

**Note :** Attempt *Five* questions in all. Q. No. 1 is compulsory. Select *two* questions from each Section A and Section B.

**(Compulsory Question)**

1. (a) Define Isotonic and Isometric Contraction.

(b) What are the deficiency systems of Zinc, Manganese and Cobalt ?

- (c) What are Phosphagens ?
- (d) What is the cause of Paget's disease ?
- (e) What are Chylomicrons ?
- (f) Define activation energy.
- (g) What is the significance of  $\text{Na}^+/\text{K}^+$  exchange pump ?
- (h) What are the functions of Lecithins ?
- (i) Why sucrose is called invert sugar ?
- (j) What is Mutarotation ? 1.5×10=15

### Section A

2. What is Passive Transport ? Describe various passive processes of transport. 6½
  
3. (a) What are Polyunsaturated Fatty Acids ? Explain its various types. 3½
- (b) Differentiate between fibrous proteins and globular proteins. 3
  
4. (a) Describe various homopolysaccharides. 3½
- (b) Describe **phosphate** buffer system in human body. 3

5. (a) Describe induced fit mechanism of enzyme action.  $3\frac{1}{2}$
- (b) Describe the process of pinocytosis and phagocytosis. 3

### Section B

6. How is energy obtained for muscle contraction? 6
7. (a) What is Bone Resorption? Write down its mechanism.  $3\frac{1}{2}$
- (b) What is Muscle Fatigue? Write down the factors favouring muscle fatigue. 3
8. (a) Describe digestion of protein in alimentary canal of man.  $3\frac{1}{2}$
- (b) What are the functions and deficiency symptoms of vitamin E and K.  $2\frac{1}{2}$

9. (a) Describe mechanism of microphagous feeding in the animals. 3
- (b) Write down the differences between Red and White muscle fibres. 3