



**B.Sc. (Semester – V) Examination, October/November 2016**

**ZOOLOGY**

**Human Physiology and Biochemistry**

Duration : 2 Hours

Total Marks : 80

**Instructions :** 1) Attempt **all** questions.

2) Figures to the **right** indicate marks **allotted** to the question.

3) **Illustrate** your answer **wherever** necessary.

1. Answer **any four** of the following : 16
    - a) Structure and functions of neutrophils.
    - b) Globulins as plasma proteins.
    - c) Linear and ring structures of ribose.
    - d) Structure of neuron.
    - e) Gamma Amino Butyric Acid (GABA) as neurotransmitter.
    - f) Composition of sucrose.
  
  2. Answer **any four** of the following : 16
    - i) Structural formulae of amino acids Alanine and Valine.
    - ii) Biological importance of fats.
    - iii) RNA polymerases in transcription.
    - iv) Role of co-enzymes in enzymatic reactions.
    - v) Functions of ligases.
    - vi) Leading and lagging strands in replication.
  
  3. A) Describe briefly various types of anaemia. 6
- OR
- A) Give a brief account of blood clotting process. 6
  - B) Describe the structure and functions of erythrocytes. 6





4. A) Discuss physiological changes occurring during sleep. 6

OR

A) Write an account on origin of nerve impulse. 6

B) What are homo polysaccharides ? Write a note on the occurrence, composition and biological role of starch. 6

5. A) Discuss briefly various chemical bonds involved in tertiary structure of proteins. 6

OR

A) Describe the secondary structure of proteins. 6

B) Give an account of cholesterol and its biological importance. 6

6. A) What are isoenzymes ? Illustrate with a suitable example. 6

OR

A) Describe competitive inhibition of enzyme activity. 6

B) Give an account of chain initiation during translation. 6