B.Sc.(N) [Post Basic (1st Year)]

BF/2015/08

Biochemistry & Biophysics

[New Scheme-w.e.f. 2007 admission]

Time : 3 Hours **Max Marks : 75**

Note: Attempt all the questions.

USE SEPARATE ANSWER SHEETS FOR EACH SECTION.

SECTION-A (Biochemistry) [38 marks]

1. (i) (a) Explain the primary structure of Protein. [2]
(b) Name different RNAs and discuss their functions. [4]
(c) What are the functions of Proteins. [4]

OR

(ii) (a) Describe the mechanism of enzyme action. [2]
(b) Write an account of the importance of serum enzymes in the diagnosis of disease. [4]
(c) Differentiate between competitive and Non competitive enzyme. [4]

2. (a) Give an account of the water distribution on its balance in the body. [2]
(b) Discuss the regulation of electrolyte balance. [4]
(c) Explain the precautions for handling specimens for enzyme estimation. [4]

3. **Write in brief (Any TWO) :** [2x3=6]
(a) Saturated and unsaturated fatty acid (b) Hyperglycemia and hypoglycemia
(c) Role of nucleic acid in protein synthesis (d) Oxidative and non oxidative phosphorylation

4. **Write Short Notes on any FOUR of the following :** [4x3=12]
(a) Essential Amino acids.
(b) Importance of biochemistry in nursing.
(c) GOUT.
(d) Milk sugar.
(e) Power house of the cell.
(f) Ketosis

SECTION-B (Biophysics) [37 marks]

1. (i) (a) What is Viscocity. [2]
(b) Explain the concept of unit. [4]
(c) Discuss briefly principal of machines and fraction. [4]

OR

(ii) (a) Explain the effect of Heat on matter. [2]
(b) Discuss the law of fraction. [4]
(c) Explain the principles of Forces in Nursing. [4]

2. (a) Application of sound in nursing. [3]
(b) How light can be used in therapy. [3]
(c) Explain the flow of electricity in light. [3]

3. **Distinguish briefly (Any TWO) :** [2x3=6]
(a) Lever and Body mechanism (b) Describe the intra cranial pressure and ocular pressure
(c) Isotopes and Isobars (d) Magnetism and electricity.

4. **Write Short Notes on any FOUR of the following :** [4x3=12]
(a) Pace makers (b) Vector and Scalar motion
(c) Gravity (d) Relative humidity
(e) X- Rays (f) Atomic energy
