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

BF/2016/08

Biochemistry & Biophysics

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

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

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

*2.) **USE SEPARATE ANSWER BOOK FOR EACH PART.***

*3.) **The Student must write separate Q.P. Code in the space provided on the Title Page of the respective Answer Book.***

SECTION-A [38 marks]

QP Code: PBN103 **(Biochemistry)**

1. (i) (a) Mutarotation. [2]
(b) Secondary Structure of Protein. [4]
(c) What are Lipids? Classify them. [4]

OR

(ii) (a) Enumerate factors affecting enzyme activity. [2]
(b) Digestion and absorption of Carbohydrates. [4]
(c) Diagnostic significance of Enzymes. [4]

2. (a) How is Electrolyte balance maintained? [2]
(b) Difference between Starch and Glycogen. [4]
(c) ETC and sites of ATP synthesis. [4]

3. **Describe brief (Any TWO) :** [2x3=6]
(a) Gout (b) Anaplerotic role of TCA
(c) Von Gierke Disease (d) Low Density Lipoprotein

4. **Write Short Notes on any FOUR of the following :** [4x3=12]
(a) Fatty Liver.
(b) Functions of Cholesterol.
(c) Energetics of TCA Cycle.
(d) Mitochondria.
(e) Glycolysis.
(f) Ketone bodies and their utilisation.

SECTION-B [37 marks]

QP Code: PBN104 **(Biophysics)**

1. (i) (a) Discuss radiation protection units and limits. [2]
(b) What is concept of Unit and Measurements. [4]
(c) What are principles of machines and friction. [4]

OR

(ii) (a) Discuss relative humidity. [2]
(b) Explain principles of Forces in Nursing. [4]
(c) Discuss Vector and Scalar Motion. [4]

2. (a) Use of sound in Nursing. [2]
(b) What are laws of Reflection. [3]
(c) Discuss nature of Electricity and Voltage. [4]

3. **Describe briefly (Any TWO) :** [2x3=6]
(a) Pulley and Traction (b) Atmospheric and Hydrostatic pressure
(c) Instruments used for detecting Ionising Radiation (d) MRI Scanning.

4. **Write Short Notes on any FOUR of the following :** [4x3=12]
(a) Pacemakers (b) Force
(c) Principles of Electronics (d) Specific Heat
(e) X-Rays (f) Atomic Energy
