

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

BF/2014/08

Biochemistry & Biophysics

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

Time : 3 Hours

Max Marks : 75

Note: Attempt all the questions.

Support your answer with neat diagrams and illustration.

USE SEPARATE ANSWER SHEETS FOR EACH SECTION.

SECTION-A (Biochemistry)

[38 marks]

1. (i) (a) Explain the abnormalities of thyroid function. [2]
 (b) Discuss briefly β Oxidation of fatty acid biosynthesis. [4]
 (c) Discuss the structure and function of biochemically important disaccharides. [4]
- OR**
- (ii) (a) Discuss the properties of enzymes. [2]
 (b) Explain digestion and absorption of lipid. [4]
 (c) Reactions of urea cycle. [4]

2. (a) Explain the homeostatic mechanism of body. [3]
 (b) Explain the property and functions of water in human body. [3½]
 (c) Role of Liver in Fat Metabolism. [3½]

3. **Distinguish briefly (Any TWO) :** [2x3=6]
 (a) Homo and Hetero polysaccharide (b) Diabetes mellitus and Diabetes Insipidus.
 (c) Intracellular and Extracellular enzyme.

4. **Write Short Notes on any FOUR of the following :** [4x3=12]
 (a) Lipoproteins (b) Steroid (c) Milk Sugar
 (d) Power house of cell (e) Anticoagulants

SECTION-B (Biophysics)

[37 marks]

1. (i) (a) What is velocity. [2]
 (b) Mention the unit of length and weight. [4]
 (c) What do you mean by atmospheric pressure. [4]
- OR**
- (ii) (a) Explain the regulation of body temperature. [2]
 (b) Explain various measurements of pressure within human body. [4]
 (c) Explain the applications of principles of force in Nursing. [4]

2. (a) Explain the effect of gravitational forces on human body. [5]
 (b) Explain the fundamental and derived units. [3]
 (c) Explain the forces of body. [2]

3. **Distinguish briefly (Any TWO) :** [2x2½=5]
 (a) Velocity and Acceleration (b) Ocular pressure and Intra cranial pressure.
 (c) Voltage and Current (d) EMG and ECT

4. **Explain any FOUR of the following :** [4x3=12]
 (a) MRI SCAN. (b) Defibrillation (c) Temperature Scale
 (d) Ionising Radiation (e) ECG (f) Uses of lenses
