

# B.Sc.(N) [Post Basic (1<sup>st</sup> Year)]

BF/2019/08

## 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 O.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) Define Enzymes. [2]  
 (b) Write the properties of Enzymes. [4]  
 (c) Explain the factors effecting the Enzyme activity. [4]
- OR**
- (ii) (a) Define Amino acids. [2]  
 (b) List down the properties of Amino acids. [4]  
 (c) Explain the functions of Amino acids. [4]
2. **Differentiate between:** [2.5x4=10]  
 (a) Monosaccharides & Disaccharides (c) Saturated fats & Unsaturated fats  
 (b) Glycogenesis & Glycogenolysis (d) Ribo nucleic acid (RNA) & Deoxyribo nucleic acid (DNA)
3. **Describe briefly any (TWO)** [3x2=6]  
 (a) Fibrous Proteins (c) Glucose tolerance test  
 (b) Functions of water in human body (d) Glycemia
4. **Write Short Notes on any FOUR of the following :** [4x3=12]  
 (a) Precautions for handling specimens for Enzyme estimation  
 (b) Digestion of Carbohydrates  
 (c) functions of Potassium  
 (d) Biosynthesis of Protein in Cell.  
 (e) Composition of Urine  
 (f) Polysaccharides

### SECTION-B

**[37 marks]**

**QP Code: PBN104**

**(Biophysics)**

1. (i) (a) Define Derived Units. [2]  
 (b) Explain Units of Weight. [2]  
 (c) Discuss the effects of gravitational forces on Human Body. [6]
- OR**
- (ii) (a) Define Velocity. [2]  
 (b) Explain briefly about Vector and Scalar Motion. [4]  
 (c) Write down the principles of Gravity. [4]
2. (a) Define Centre of Gravity. [2]  
 (b) Explain the effects of Heat on Matter. [4]  
 (c) Discuss the Biological effects of Light. [4]
3. **Describe briefly (Any Two):** [2.5x2=5]  
 (a) Transfer of Heat (c) Instruments used for detection of Ionising Radiation  
 (b) ECG (d) Relationship between energy, frequency and wave length of Light
4. **Write Short Notes on any FOUR of the following:** [4x3=12]  
 (a) Noise pollution and its prevention (b) Structure of Atom  
 (c) CAT Scan (d) Regulation of Body Temperature  
 (e) Relative Humidity (f) Defective Vision