

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

BF/2019/02

## 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) Discuss the factors affecting Enzyme activity. [4]  
 (c) List down the precautions for handling specimens for Enzyme estimation. [4]
- OR**
- (ii) (a) List the functions of Potassium. [2]  
 (b) Write the properties of Enzymes. [4]  
 (c) Explain the functions of Amino acids. [4]
2. (a) Define the Fats. [2]  
 (b) Explain the process of biosynthesis of Fats. [4]  
 (c) Describe the process of digestion of Fats. [4]
3. **Describe brief (Any TWO) :** [2x3=6]  
 (a) Functions of Lipids. (b) Components of Cell.  
 (c) Glycogenesis. (d) Biological Importance of Cholesterol.
4. **Write Short Notes on any FOUR of the following :** [4x3=12]  
 (a) Uric Acid Formation.  
 (b) Role of Insulin.  
 (c) Hyperglycemia.  
 (d) Polysaccharides.  
 (e) Utilisation of Ketone Bodies.  
 (f) Classification of Hormones.

### SECTION-B

**[37 marks]**

**QP Code: PBN104**

**(Biophysics)**

1. (i) (a) List the Units of Weight. [2]  
 (b) Differentiate between Speed and Velocity. [4]  
 (c) Explain briefly about the types and transformation of Energy. [4]
- OR**
- (ii) (a) Define Electronics. [2]  
 (b) List down the principles Electronics. [4]  
 (c) Explain the Units of Current and Resistance. [4]
2. (a) Define Atmospheric Pressure. [2]  
 (b) Discuss the application of Osmotic Pressure in Nursing. [3]  
 (c) Discuss the relationship between Frequency and Wavelength of Light. [4]
3. **Describe briefly (Any TWO) :** [2x3=6]  
 (a) Radioactivity. (b) Defibrillation.  
 (c) Uses of Ultrasound. (d) Frequency and Intensity of Sound.
4. **Write Short Notes on any FOUR of the following :** [4x3=12]  
 (a) Measurement of Ocular Pressure. (b) Vocalization and Hearing.  
 (c) Electromagnetism. (d) Flow of Electricity in Gases.  
 (e) ECG. (f) Radiation Protection Units and their Limits.