



NB-020107

Seat No. _____

First Year Post Basic B. Sc. (Nursing) Examination

January – 2017

Biochemistry & Biophysics

Time : **3 Hours**]

[Total Marks : **75**

- Instructions:
1. Write each section separately.
 2. Draw neat labeled diagrams whenever necessary.
 3. Figure to the right indicate full marks.

SECTION - I : BIOCHEMISTRY (38 MARKS)

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|---|---|---------|
| 1 | Long Essay : (any two) | 2×10=20 |
| | (1) (A) Explain the role of liver in fat metabolism. | 5 |
| | (B) Describe the biological importance of lipids and their synthesis. | 5 |
| | (2) (A) Explain the mechanism of action of Enzymes. | 5 |
| | (B) What are the factors affecting enzyme action. | 5 |
| | (3) Importance of Biochemistry in Nursing. | |
| 2 | Short Essay (Any Three) | 3×5=15 |
| | 1. Functions of water & electrolytes in human body | |
| | 2. Structure of cell | |
| | 3. Blood Glucose & its regulation | |
| | 4. Glucose Tolerance test. | |
| 3 | Very Short Essay (Any one) | 1×3=3 |
| | 1. Glycogenesis | |
| | 2. Amino Acids | |
| | 3. Sources of Carbohydrates. | |

SECTION - II : BIOPHYSICS (37 MARKS)

1. Long Answer : (ANYONE) 1×10=10
 1. What is X-Ray? Write down their properties and how are they produced. Write applications of X - rays in Medicine.
 2. What is motion, enumerate different types of motions. Discuss Newton's laws of motion with suitable examples.

 2. Brief Answers : (ANY THREE) 3×5=15
 1. Describe gravity and its importance in nursing.
 2. Explain Gas Laws.
 3. Write a short note on Energy and illustrate its different forms.
 4. Write a note on application of refraction and total internal reflection.
 5. Regulation of body temperature.

 3. Short Answers (COMPULSORY) 6×2=12
 1. Differentiate between Scalar and Vector quantities.
 2. Noise pollution.
 3. Ohm's law.
 4. Laws of reflection.
 5. Friction force and its application.
 6. Types of Motion.
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