

Reg. No:.....

**First Year Post Basic B.Sc Nursing Degree Supplementary Examinations
February 2024**

**Biochemistry & Biophysics
(2016 Scheme)**

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary • Write section A and section B in separate answer books (32 pages). Do not mix up questions from section A and section B.*

QP Code: 113011

Section A – Biochemistry

Marks: 40

Short Essays:

(2x7=14)

1. Describe the process of glycolysis. Explain how many ATPs are produced in aerobic and anaerobic process.
2. Enumerate enzyme inhibition and significance

Short Notes:

(2x5=10)

3. Explain lipoproteins and their significance
4. Plasma proteins and their function

Answer briefly:

(4x4=16)

5. Malabsorption syndrome
6. Chloride – RDA, function and deficiency
7. Structure and function of mitochondria
8. Functions of water and water distribution in the body

QP Code: 114011

Section B- Biophysics

Marks: 35

Short Essays:

(3x7 = 21)

1. What are the methods of transfer of heat. Explain their applications in clinical settings.
2. Explain the principle and the applications of Magnetic Resonance Imaging (MRI) briefly.
3. What are the parts of the human eye and write their functions.

Short Notes:

(2x4 = 8)

4. Applications of gravity in nursing.
5. Write a note on the hearing aid. Write its principle.

Answer Briefly:

(2x3 = 6)

6. Write the uses of autoclaves in nursing.
7. Define Osmotic pressure. Write the factors that affect osmotic pressure.
