

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[PBBSCN 0722]

**JULY 2022
(FEBRUARY 2022 SESSION)**

Sub. Code: 4884

**POST BASIC BACHELOR OF SCIENCE IN NURSING
DEGREE EXAMINATION**

(Regulations for candidates admitted from 2010-2011 Session onwards)

FIRST YEAR

PAPER III – BIOCHEMISTRY AND BIOPHYSICS

Q.P. Code: 684884

Time : Three Hours

Maximum : 75 Marks

Answer Section A and B in a SEPARATE answer book.

**SECTION - A
(BIOCHEMISTRY)**

I. Elaborate on: **(1 x 15 = 15)**

1. Describe the metabolism of glycolysis with its energetics and regulation.

II. Write notes on: **(3 x 5 = 15)**

1. Classification of Carbohydrates.
2. Clinical importance of Enzymes.
3. Essential Amino acids with example.

III. Short answers on: **(5 x 2 = 10)**

1. Importance of Biochemistry in Nursing.
2. Metabolic Acidosis.
3. Kwashiorkar and Marasmus.
4. Pancreatic related Enzymes.
5. Normal value of calcium and Phosphorus in Blood.

**SECTION - B
(BIOPHYSICS)**

I. Elaborate on: **(1 x 15 = 15)**

1. Explain the methods of heat transfer and how does the body regulate the temperature with the significance of metabolic rate.

II. Write notes on: **(2 x 5 = 10)**

1. Explain the working of MRI scan.
2. Explain Lever and its types.

III. Short answers on: **(5 x 2 = 10)**

1. Derived units.
2. Define center of Gravity.
3. Explain biological effects of light.
4. Explain ultra sound and its uses.
5. What is Isotopes and Isobars?
