

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

**[PBBSN 1123]**

**NOVEMBER 2023  
(AUGUST 2023 EXAM 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. Explain the process of TCA cycle and regulation. How many molecules of ATP are produced during the complete oxidation of Glucose?

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

1. Lactose intolerance.
2. Explain the mechanism of Enzyme activity.
3. Write any two Renal Function tests.

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

1. Marasmus.
2. Importance of HMP shunt.
3. Any two products of Cholesterol.
4. Write normal value of Serum proteins.
5. Mitochondria and Lysosome.

**SECTION - B  
(BIOPHYSICS)**

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

1. What is Radio Activity? Explain the use of Radioisotopes in medicine.

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

1. Electricity and Human body.
2. Sphygmomanometer.

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

1. Acceleration and Deceleration.
2. Fundamental unit with an example.
3. Myopia and Hypermetropia.
4. What is Surface tension? Give Units.
5. Uses of Ultrasound.

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