

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

[PBBSN 1122]

NOVEMBER 2022

Sub. Code: 4884

(AUGUST 2022 EXAM SESSION)

**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 in detail about TCA cycle, its energetics and its amphibolic nature.

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

1. Lipoproteins.
2. Glycogenolysis.
3. Factors influencing enzyme action.

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

1. Mitochondria.
2. Hyper-cholesterolemia.
3. Normal values of serum electrolytes.
4. Hartnup's disease.
5. Clinical picture of hemolytic jaundice.

SECTION - B

(BIOPHYSICS)

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

1. What is ultra-sound? Discuss the various methods of ultra-sound imaging in medicine.

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

1. What are the properties of Alpha (α), Beta (β) and Gamma (γ) particles?
2. Electro Encephalography (EEG).

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

1. Define inertia.
2. Basal Metabolic Rate.
3. State Coulomb's law.
4. Convection.
5. What is electromagnetic induction?
