

Reg. No:.....

First Year Post Basic B.Sc Nursing Examinations November 2016

BIOCHEMISTRY AND BIOPHYSICS

Time: 3 Hours

Total Marks: 75

- Answer all questions. 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: **103011** **Section A - BIOCHEMISTRY**

Marks: **37½**

Essay: (10)

1. Define glycolysis. Explain the steps of glycolysis. Add a note on its energetics. (1+7+2)

Short notes: (4x5=20)

2. Mention the normal levels of uric acid. Discuss the causes of gout
3. Discuss the biological importance of lipids
4. Discuss the diagnostic significance of liver enzymes
5. Mention the functions of the following • Rough endoplasmic reticulum •Lysosomes

Answer briefly: (3x2 ½ =7 ½)

6. Mention the components of electron transport chain
7. Mention the normal levels of •Sodium •Cholesterol •Potassium
8. Mention the functions of albumin

QP CODE: **104011** **Section B- BIOPHYSICS**

Marks: **37½**

Essay: (10)

1. Define Heat. Explain the modes of conduction of heat. Add a note on relative humidity.

Short notes: (4x5=20)

2. Define noise. Explain the effects of noise on human health.
3. Explain the Newton's Laws of Motion with suitable example.
4. Define Light. Explain the applications of light in therapy.
5. Explain the biomedical applications of radioisotopes.

Answer briefly: (3x2½=7½)

6. Give the difference between scalar and vector quantity.
7. Define Pressure. Give the Pascal's Law.
8. Define voltage and current. Give their units.
