

Reg. No:.....

First Year Post Basic B.Sc Nursing Supplementary Examinations April 2017

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. Name the plasma lipoproteins and mention their functions. Mention normal serum level of cholesterol and mention the causes of hypercholesterolemia.

Short notes: (4x5=20)

2. The reactions of urea cycle
3. Synthesis and utilization of ketone bodies
4. Regulation of blood glucose level
5. Components and organization of mitochondrial electron transport chain

Answer briefly: (3x2½ =7½)

6. Diagnostic importance of serum alanine aminotransferase (ALT) and aspartate amino transferase (AST)
7. Lactose intolerance
8. Composition and importance of glycogen

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. Principle and uses of electroencephalography (EEG)
3. Principle and uses of computed tomography (CT) scan
4. Explain the Newton's laws of motion with suitable examples
5. Define noise. Explain the effects of noise on human health

Answer briefly: (3x2½=7½)

6. Name the common electronic equipments used in patient care
7. Use of ultrasound
8. What are pace makers. Mention their use.
