

Reg. No:.....

First Year Post Basic B.Sc Nursing Supplementary Examinations- April 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. Explain the steps of urea cycle. Mention the causes of increased blood urea level

Short notes: (4x5=20)

2. Name the lipoproteins. Mention their functions
3. Discuss the functions of plasma proteins
4. Draw a neat labelled diagram of cell
5. Explain the effect of temperature and pH on enzyme activity

Answer briefly: (3x2 ½ =7 ½)

6. Name the hormones involved in water and electrolyte balance
7. Mention the defect and clinical manifestations of lactose intolerance
8. Name the ketone bodies. List the causes of ketosis

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

Marks: **37½**

Essay: (10)

1. Explain the principle of electroencephalography (EEG). Describe how EEG is recorded. Mention the clinical significance of EEG.

Short notes: (4x5=20)

2. Define gravity. Explain the effects of gravity on human health.
3. Define the isotopes, isobars and isomers. Give suitable examples.
4. Mention the types of ultrasound. Explain the biomedical applications of ultrasound.
5. Define light. Explain the effects of light in therapy.

Answer briefly: (3x2½=7½)

6. Mention the effects of noise pollution.
7. Define force, work and energy.
8. Define arterial blood pressure. Mention its normal value.
