



February 2010

[KW 824]

Sub. Code: 4884

**B.Sc (Nursing) DEGREE EXAMINATION**  
**(For Trained Nurses)**  
**First Year**  
**Non-Semester**  
**Paper III – BIOCHEMISTRY AND BIOPHYSICS**  
**Q.P. Code : 684884**

**Time : Three hours**

**Maximum : 75 marks**

**Answer All questions.**

**Answer Section A and B in a SEPARATE answer book.**

**SECTION – A**  
**(BIOCHEMISTRY)**

**I. Essay:** (1 x 15 = 15)

1. Define Gluconeogenesis. Write in detail the pathway and regulation of gluconeogenesis.

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

1. Ketone bodies.
2. Plasma proteins and their functions.
3. Mitochondria.

**III. Short Answer Questions:** (5 x 2 =10)

1. What is normal serum levels of sodium and potassium?
2. Name two digestive enzymes.
3. Define Glycogenolysis.
4. Write two enzymes that are elevated in jaundice.
5. What are lipo proteins? Give two examples.

**SECTION – B**  
**(BIOPHYSICS)**

**I. Essay:** (1 x 15 = 15)

1. Describe the various types of pulleys and explain the lever mechanism in the human body.

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

1. Pulse oximeter.
2. Application of light in nursing.

**III. Short Answers Questions:** (5 x 2 =10)

1. What is centrifugal force?
2. What is the use of Calorimeter?
3. What is ocular pressure?
4. What is piezo electric effect?
5. What is electrolysis?

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