I year B.Sc. Nursing (PC) Degree Examination – Aug / Sep 2011

Time: Three Hours   **Max. Marks: 75 Marks**

BIOCHEMISTRY & BIOPHYSICS (RS–3 & RS-4)

Q.P. CODE: 1739 & 1740

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary
Use separate answer books for section A and section B

Q.P. Code: 1739 – Section A – BIOCHEMISTRY (38 Marks)

LONG ESSAYS (Answer any One)   **1 x 10 = 10 Marks**
1.   Explain the various factors affecting the enzyme activities
2.   Define glucose tolerance test. Describe oral glucose tolerance test. Add a note on glycosuria

SHORT ESSAYS (Answer any Four)   **4 x 5 = 20 Marks**
3.   Describe the steps involved in the formation of uric acid
4.   Diagnostic applications of serum enzymes
5.   Describe the digestion and absorption of proteins
6.   Discuss water balance
7.   Functions of lipoproteins

SHORT ANSWERS   **4 x 2 = 8 Marks**
8.   Lysozomes
9.   Hyperglycemia
10. Write the normal range of (a) Serum cholesterol (b) Serum calcium
11. Vongierke's disease

Q.P. Code: 1740 – Section B – BIOPHYSICS (37 Marks)
Use separate answer book

LONG ESSAYS (Answer any One)   **1 x 9 = 9 Marks**
1.   What are X-rays? How are they produced. List the properties and uses of X – rays in medicine
2.   Explain the term current, voltage and resistance. Mention their units and write a note on ohms law

SHORT ESSAYS (Answer any Four)   **4 x 5 = 20 Marks**
3.   What are the defects of vision? How are they corrected
4.   Explain the difference between conduction, convection and radiation
5.   Write a note on cardiac pacemaker
6.   What are the applications of gravity in nursing
7.   Explain the working principle of a sphygmomanometer with diagram

SHORT ANSWERS   **4 x 2 = 8 Marks**
8.   Explain velocity and acceleration
9.   What are the principles of traction
10. Convert 40 degree celcius to corresponding temperature in Kelvin
11. Why woolen clothes are preferred in winter

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