

First year B.Sc. Nursing (PC) Degree Examination – August 2010

**Time: Three Hours****Max. Marks: 75 Marks****BIOCHEMISTRY & BIOPHYSICS (RS-3 & RS-4)****Q.P. CODE: 1739& 1740**

Four 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. What are enzymes? Outline their classification giving an example
2. Give an account of the digestion and absorption of proteins

**SHORT ESSAYS (Answer any Four)****4 x 5 = 20 Marks**

3. Functions and distribution of water in the body
4. Enzymes in the diagnosis of myocardial infarction
5. Absorption of glucose tolerance test
6. Urea cycle
7. Kepoproteins

**SHORT ANSWERS****4 x 2 = 8 Marks**

8. Substrate level phosphorylation with one example
9. Importance of uronic acid pathway
10. Normal levels of albumin and cholesterol in serum
11. Two inhibitors of the electron transport chain with their site of action

**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 is Stable Isotope and Radio Isotope? Name any two methods of preparation of Radio Isotope and their application in medical practice
2. What is the normal audio frequency range of normal human ear? Explain the relation between frequency, velocity and wavelength. Write a note on Audiometry

**SHORT ESSAYS (Answer any Four)****4 x 5 = 20 Marks**

3. State and explain the Newton's laws of motion
4. Define velocity, Acceleration, and Acceleration due to Gravity. Mention their units
5. Explain the principle, construction and working of an Autoclave
6. Write a note on use of X-rays in clinical practice
7. Name the defects of vision. How they are corrected?

**SHORT ANSWERS****4 x 2 = 8 Marks**

8. Why ice floats on the surface of water? Explain
9. Gravity affects circulation of blood. Explain
10. What are the uses of ultrasonic waves?
11. Steam burn is more injurious than that due to boiling water. Explain

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