

I year B.Sc. Nursing (PC) Degree Examination – Feb / Mar 2012

**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. Mention the normal Random blood sugar levels. Discuss the hormonal regulation of blood glucose levels
2. Discuss the biosynthesis of fatty acids

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

3. Phospholipids
4. Essential amino acids
5. Structure and functions of t- RNA
6. Glucose tolerance test (GTT)
7. Factors affecting enzyme activity

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

8. Micelle
9. Endoplasmic reticulum
10. Hypoglycemia
11. Give the normal serum levels of (a) Urea (b) Creatinine

**Q.P. Code: 1740 – Section B – BIOPHYSICS (37 Marks)****Use separate answer book****LONG ESSAYS (Answer any One)****1 x 9 = 9 Marks**

1. Define centre of gravity? Describe the application of gravity in nursing
2. Describe the biological effects of light. Explain any two applications of principles of light in nursing

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

3. Explain the forces of the body
4. How the body temperature is regulated? Explain
5. What are eye defects? How they are corrected
6. Explain vocalization and hearing
7. Write notes on electricity and human body

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

8. Define density and specific gravity
9. Distinguish between atmospheric pressure and hydrostatic pressure
10. Define electrical resistance and write its unit
11. What are alpha and beta particles

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