

(14)

Rajiv Gandhi University of Health Sciences, Karnataka

1 year B.Sc. Nursing (PC) Degree Examination – Aug 2013

Time: 3 Hours

Max. Marks: 37 Marks

**Biophysics**

**Q.P. Code : 1740**

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary  
**(Note : Both QP Codes 1739 and 1740 are to be answered within total duration of 3 hours)**

**LONG ESSAYS (Answer any One)**

**1 x 9 = 9 Marks**

1. Explain the terms current, Voltage and resistance. Write their units of measurement. State Ohm's Law and explain.
2. What is the normal audio frequency range of human ear? Explain relation between frequency, velocity and wavelength of sound waves.

**SHORT ESSAYS (Answer any Four)**

**4 x 5 = 20 Marks**

3. What is the normal value of arterial and venous blood pressure? How will you measure arterial blood pressure by non-invasive technique?
4. Write a note on body temperature regulation.
5. Define ultrasonic waves and its clinical applications.
6. What is a pacemaker and where is it used?
7. Draw a neat diagram of Lead – II ECG and label its parts.

**SHORT ANSWERS**

**4 x 2 = 8 Marks**

8. With examples, explain an electrical insulator and a conductor.
9. Write a note of CAT Scan.
10. What is the normal ocular pressure?
11. What is the value of normal atmospheric pressure at sea level? Write the composition of normal air.

\*\*\*\*\*