

Rajiv Gandhi University of Health Sciences, Karnataka I year B.Sc. Nursing (PC) Degree Examination - 27-Nov-2020

Time: 3 Hours Max. Marks: 37 Marks

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

 $1 \times 9 = 9 \text{ Marks}$

- 1. What are X-rays? How are they produced? List the properties and uses of X-rays in medicine.
- 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)

 $4 \times 5 = 20 \text{ Marks}$

- 3. Use of pacemakers and defibrillation.
- 4. Explain hydrostatic pressure and osmotic pressure.
- 5. Use of heat for sterilization.
- 6. Use of light in therapy.
- 7. Effect of principles of gravity in nursing.

SHORT ANSWERS 4 x 2 = 8 Marks

- 8. Explain why steam burn is more injurious than burn due to boiling water?
- 9. What are isotopes and isobars?
- 10. Define electrical resistance and write its units.
- 11. Write a neat diagram of ECG and label.
