Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (Radiotherapy Technology) (Sem.–3)

BASIC RADIOTHERAPY PHYSICS

Subject Code : BSRT-303-19

M.Code : 78482

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Write briefly :

1) What do you mean by megavoltage?

2) What is radiotherapy?

3) Write in brief about decay constant.

4) What do you understand by recommended dose limit in radiotherapy?

5) Define Roentgen.

6) What are primary and secondary radiations?

7) What is Heel effect?

8) Define TMR.

9) What are the clinical applications of I-125?

10) When did X-Ray radiotherapy came into existence for medical examination?

SECTION-B

11) Why there is need for dose calculation of radioactive substance in clinical practice?

12) Write a note on applications of radiotherapy.

13) What is the procedure to check the absorbed dose of radiation in the body?

14) What precautions are to be followed while conducting radiotherapy?

15) Draw the labelled diagram of major components of orthovoltage X-Ray tube. How X-Rays are produced in this unit?

SECTION-C

16) Discuss about the factors affecting dose calculation of radioactive substance.

17) Describe the production and properties of gamma rays.

18) Write about the emission produced, energy spectrum, half life and clinical use of Cesium-137 nucleotide.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.