

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

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

RADIOTHERAPY EQUIPMENT-I

Subject Code : BSRT-302-19

M.Code : 78481

Date of Examination : 14-12-22

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

1. Write briefly :

- a) Define low dose rate.
- b) Write name of radioactive material used in brachytherapy therapy.
- c) What is after loading?
- d) What are Bremsstrahlung X rays?
- e) Write limitations of tele-cobalt.
- f) What is magnetron?
- g) Which radiations are produced by LINAC?
- h) Define teletherapy.
- i) What is a monochromatic light?
- j) Define collimation.

SECTION - B

2. Write in brief about dose range in high dose rate, low dose rate and Pulsed dose rate brachytherapy treatments.
3. Write a brief note on imaging accessories.
4. Explain how Bremsstrahlung X rays are generated.
5. Write a note on Medical linear accelerators.
6. Add a brief note on components of LINAC.

SECTION-C

7. **Write a short note on:**
 - a) Modifying and defining devices.
 - b) Electron beam
 - c) Treatment head.
8. Describe clinical relevance of teletherapy. What are the limitations of using teletherapy?
9. With explanation of Cobalt-60 nucleus decay draw a well labeled diagram for energy level.

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.