

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

## B.Sc(Radiotherapy Technology) (Sem.-5)

## RADIOTHERAPY EQUIPMENT-II

**Subject Code : BSRT-501-19**

**M.Code : 90329**

**Date of Examination : 12-12-22**

**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. Elaborate RFA.
  - b. What is the function of RW3 Slab Phantom?
  - c. Write down the applications of radiography.
  - d. What modalities are used to simulate radiation therapy treatments?
  - e. What is Voxel Phantom?
  - f. Enlist various methods to detect radiation.
  - g. What is multi section radiography?
  - h. Explain the processing system in CT.
  - i. Enlist various detectors used in CT.
  - j. Elaborate the term 'EPID' and give its principle.

### **SECTION-B**

2. Write a note on cylindrical and PPC chamber.
3. Explain in detail about various in-vivo dosimeters.
4. Give a detailed account on electrometer.
5. Explain the following:
  - a) Reference conditions for dosimetry.
  - b) Slabs.
6. Discuss in brief about processing unit and storage unit in CT.

### **SECTION-C**

7. Differentiate between 3DCT and 4DCT simulator. Give the working and principle of 3DCT simulator.
8. Explain various types of phantoms used in radiotherapy. What are the materials used for phantoms? Give their properties.
9. What do you mean by OBI systems? Write a short note on Port film and MVCT.

**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.**