

**M.Sc. RADIOTHERAPY TECHNOLOGY
FIRST YEAR**

(Candidates admitted from 2019-2020 onwards – Paper - IV)

(Candidates admitted from 2020-2021 onwards – Paper - V)

**Paper – IV & V – ADOPTION OF NEW RADIOTHERAPY TECHNOLOGY,
RADIATION HAZARDS, EVALUATION AND CONTROL**

Q. P. Code: 282404

Time: Three hours

Maximum : 100 Marks

Answer ALL Questions

I. Elaborate on:

(2 x 20 = 40)

1. What are the isotopes used in radiotherapy department? Describe its physical and radioactive properties with suitable examples.
2. Quality assurance for photon beam in linear accelerator.

II. Write notes on:

(10 x 6 = 60)

1. Beam Modifying Devices.
2. Tissue- Air Ratio (TAR), Tissue Maximum Ratio (TMR).
3. CT Simulator.
4. Tomotherapy.
5. QA of HDR brachytherapy machine.
6. Properties of electrons and protons.
7. Functions of Regulatory Body.
8. Monitoring instruments in radiation emergency.
9. Responsibilities of RSO.
10. Difference between SRS and SRT.
