

**B.Sc. IN RADIATION THERAPY TECHNOLOGY
(BRTT)**

Term-End Examination

June, 2013

**BAHI-039 : RADIOTHERAPY PROCESS AND
CONVENTIONAL TECHNIQUES**

Time : 3 Hours

Maximum Marks : 70

PART - A

Write short notes on *any six* of the following.

Each carries *five* marks.

5x6=30

1. Treatment uncertainties in external beam radiation therapy.
2. Bolus materials used in the department and their role in electron beam treatment.
3. The localization methods available for obtaining cross-sectional anatomical information in external beam treatment planning.
4. Differences between Conventional Simulation and Virtual Simulation.
5. (a) Informed consent
(b) Anamnesis

6. Parallel-opposed field treatment technique in conventional practice.
7. In - vivo dosimetry.
8. Methods available for transferring images from imaging systems to treatment planning computer.
9. Treatment parameters to be documented for external beam radiotherapy practice.

PART - B

Answer *any four* of the following. Each carries *ten* marks.

10x4=40

1. Write in detail about beam modifying devices used in external beam radiotherapy.
2. Describe the role of electron beam treatment in various clinical sites.
3. Describe the treatment techniques for cervix cancer both by external and brachytherapy methods.
4. Write in brief about virtual simulator. Explain the advantages and disadvantages of large - bore CT scanner used for treatment planning.
5. Describe the following terms (a) DVH (b) Interfraction (c) Intrafraction (d) DRR.
6. Describe the treatment techniques available for head and neck cancer in radiotherapy.
7. Explain about different types of dose calculation methods used in treatment planning systems.