

00052 B.Sc. IN RADIATION THERAPY TECHNOLOGY  
(BRTT)

Term-End Examination

December, 2013

BAHI-039 : RADIOTHERAPY PROCESS AND  
CONVENTIONAL TECHNIQUES

Time : 3 hours

Maximum Marks : 70

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PART-A

Write short notes on *any six* of the following : 5x6=30

1. Shielding materials used in Radiotherapy.
2. Accessories used for patient immobilization.
3. Digitally Reconstructed Radiographs.
4. Use of simulators in Radiotherapy.
5. Dose volume histograms.
6. Geometric uncertainties in Radiotherapy.
7. Universal wedges.
8. Networking in Radiotherapy.
9. Use of non-coplanar fields for the treatment of pituitary tumors.

## PART-B

Answer *any four* questions. Each carries **10**  
*marks* : **10x4=40**

1. Describe in detail about the steps involved in 3 dimensional conformal Radiotherapy treatment.
2. Explain the different Radiotherapy planning volumes explained in recent ICRU report.
3. What are the general features which should be available in a Radiotherapy simulator ? What is the role of a moving laser in a simulator room ?
4. Explain in detail about the simulation and treatment technique for cancer of middle 1/3 of oesophagus.
5. What is mantle field technique ? What are the special care which need to be taken for a mantle technique ?
6. Describe the treatment technique for a patient with CA breast using a linear accelerator.
7. Explain about the different in-vivo dosimetry methods which can be adopted in a Radiotherapy department.