

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

Term-End Examination

June, 2013

**BAHI-034 : RADIOTHERAPY EQUIPMENT AND
PHYSICS**

Time : 3 hours

Maximum Marks : 70

PART-A

Answer *any five* questions.

8x5=40

1. Describe intra operative radiotherapy and mention its indications and advantages. **8**
2. What is adaptive radiotherapy (ART) and what are the clinical applications. **8**
3. Describe principles, technique and advantages of intensity modulated radiotherapy. **8**
4. Describe high dose rate brachytherapy systems and their clinical use. **8**
5. Describe working of a Linear Accelerator with diagram. **8**
6. Beam directional and immobilization devices in external radiotherapy. **8**
7. Stereo tactic irradiation technique, principles and indications. **8**

PART-B

Write short notes on *any five* of the following : 6x5=30

1. Compensators and beam modifiers 6
 2. Radio isotopes used in Teletherapy 6
 3. Image guided radiotherapy and its advantages 6
 4. Virtual simulation 6
 5. Total body irradiation (TBI) 6
 6. Interaction of radiation with matter 6
 7. Properties of radio isotopes used in brachytherapy 6
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