

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)

THIRD YEAR

PAPER I – RECENT ADVANCES IN RADIOTHERAPY TECHNIQUES

Q.P. Code: 801936

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Volumetric Modulated Arc Therapy (VMAT).
2. Stereotactic Radiotherapy.
3. Immobilization and Tracking in Image Guided Radiotherapy.

II. Write notes on:

(8 x 5 = 40)

1. Total Body radiation.
2. Intra Operative Radiation Therapy (IORT).
3. Radio sensitizers.
4. Various verification strategies in conformal radiotherapy.
5. Adaptive Radiotherapy.
6. 4D CT Simulation.
7. Robotic Radiosurgery.
8. Hyperthermia.

III. Short answers on:

(10 x 3 = 30)

1. Virtual Simulation.
2. Dynamic Wedge.
3. Cone Beam CT and its role in Radiotherapy.
4. Image Registration.
5. Electronic portal imaging device.
6. Dose Volume Histograms.
7. PACS system in Radiotherapy Workflow.
8. Targeted Therapy.
9. GTV/CTV/ITV/PTV.
10. RPM Systems in Radiotherapy.
