

B.Sc. RADIOTHERAPY TECHNOLOGY
(New Syllabus 2014-2015)
SECOND YEAR
PAPER III – RADIOTHERAPY TECHNIQUES

Q.P. Code: 801933

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe the indications, technique, dose and complications of radiotherapy in carcinoma oropharynx.
2. Describe the technique of total body irradiation and treatment verification for the same.
3. Mention various set up verification systems available and describe any 2 of them in detail.

II. Write notes on: **(8 x 5 = 40)**

1. Immobilization for stereotactic body radiotherapy.
2. Enumerate beam shaping devices and describe one of them in detail.
3. Describe any three radiation safety features in a teletherapy radiation room.
4. Describe conventional technique for pituitary adenoma.
5. Compare and contrast 3DCRT and IMRT techniques.
6. Write formula to calculate treatment time. Explain any 2 factors that affect treatment time.
7. Build-up material and its use.
8. Brachytherapy for thigh sarcoma.

III. Short answers on: **(10 x 3 = 30)**

1. What is the conventional technique used for carcinoma cervix and why?
2. Dwell time and dwell position.
3. What energy X-rays would you prescribe for an obese person to treat his pelvis? Why?
4. Intraoperative radiation therapy- indications and energies used.
5. Advise on care of a person on radiation to head and neck region.
6. Prescribe prophylactic cranial irradiation for Acute lymphoblastic leukemia.
7. Difference in isodose charts for Cobalt 60 and 6 MV xrays for same field size and depth.
8. Define OAR. Write constraints for lungs in mediastinal radiation therapy planning.
9. Name 6 benign conditions in which radiation therapy is used for treatment.
10. Name 3 conditions where intraluminal brachytherapy can be used.
