

B.Sc. RADIOTHERAPY TECHNOLOGY
THIRD YEAR
PAPER I – QUALITY ASSURANCE IN RADIOTHERAPY

Q.P. Code: 801921

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. Explain the periodic QA tests to be carried out in a Telecobalt machine.
2. Discuss the following QA tests in brachytherapy
(a) autoradiograph (b) swipe test (c) Source calibration
3. Explain in detail periodic Quality Assurance Tests of a simulator.

II. Write notes on:

(8 x 5 = 40)

1. Explain kV check and mA check.
2. Field flatness and symmetry.
3. Write the names of any 10(ten) TPS QA tests.
4. Quality control of brachytherapy applicators.
5. Radiation Field Analyzer.
6. Write notes on PDD and TMR.
7. Entrance and Exit dose measurement.
8. Diode dosimeter and Thermoluminescent dosimeters.

III. Short answers on:

(10 x 3 = 30)

1. T-rod.
2. screen-film contact test.
3. Lead apron QA.
4. Well type chamber.
5. Laser alignment check.
6. Collision device check.
7. Focal spot size check.
8. Accuracy of plotter in TPS.
9. Field alignment for fluoroscopy devices.
10. Basic Qualification of a radiotherapy technologist.
