

B.Sc. RADIOTHERAPY TECHNOLOGY
THIRD YEAR
PAPER III – RADIATION HAZARDS, CONTROL AND SAFETY

Q.P. Code: 801923

Time: Three Hours

Maximum : 100 Marks

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

1. AERB prescribed Dose limits for Radiation Workers, Occupational exposure to women and Dose limits to members of the public.
2. Safety specifications for teletherapy and brachytherapy units.
3. ICRP 60 Concepts.

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

1. Natural background radiation exposure.
2. Draw the Layout of a linear accelerator.
3. RSO responsibilities.
4. Survey meter and its practical use.
5. Define Dose, Equivalent Dose and Effective Dose.
6. Guidelines to use TLD Badge.
7. Role of IAEA in radiation protection.
8. Workload, Use and Occupancy factor.

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

1. IAEA.
2. Maze.
3. T-rod.
4. TVL.
5. Zone monitor.
6. Radiation risk.
7. Effects of shielding in control of radiation.
8. Pocket dosimeter.
9. Internal hazard.
10. Qualification of a Radiotherapy Technologist.
