

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0423]

APRIL 2023

Sub. Code: 1932

**B.Sc. RADIOTHERAPY TECHNOLOGY
SECOND YEAR (Regulations 2014-2015 & 2018-2019 onwards)
PAPER II – RADIOTHERAPY EQUIPMENTS, APPLICATIONS &
MAINTENANCE
Q.P. Code: 801932**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Explain about the Construction and working of a Telecobalt Therapy Unit.
2. What is a CT Simulator? Explain the Process of CT Simulation.
3. What is Intracavitary Brachytherapy? Write about the Simulation procedure for Intracavitary Brachytherapy.

II. Write Notes on:

(8 x 5 = 40)

1. Grenz Therapy.
2. Record and Verify system.
3. Difference between Magnetron and Klystron.
4. Isodose chart and their use.
5. What is Penumbra? Explain its types.
6. Phantoms.
7. Merits of LA over Telecobalt machine.
8. What is a Wedge? Explain its types.

III. Short Answers on:

(10 x 3 = 30)

1. Off axis Ratio.
2. Skin sparing effect.
3. Physical characteristics of Cobalt – 60.
4. Isocentre.
5. Depth of Dose Maximum.
6. Immobilisation devices.
7. Air Kerma strength.
8. Write any three daily Quality Assurance Tests for LA.
9. SSD vs SAD.
10. Define Flatness.
