

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

[AHS 0122]

**JANUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 4031

**M.Sc. MEDICAL PHYSICS
SECOND YEAR (From 2010-2011 onwards)
PAPER I – ADVANCED TECHNIQUES OF RADIOTHERAPY
*Q.P. Code : 284031***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Write in detail the various steps involved in 3- dimensional conformal radiotherapy.
2. Write in detail about the emergency conditions that can occur in HDR and write down the procedures to manage it.

II. Write Short Notes on:

(10x6 = 60)

1. Techniques in TSET.
2. Various Immobilization devices for SRS patients.
3. Gamma Knife.
4. Ocular brachytherapy.
5. Various techniques for IMRT delivery.
6. QA procedures for IMRT.
7. Temporary and Permanent prostate implants.
8. Write about any two radiation delivery systems in IVBT.
9. Evaluation of treatment plans in SRS.
10. KV and MV cone beam CT.
