

THE TAMIL NADU M.G.R. MEDICAL UNIVERSITY

[AHS 1023]

OCTOBER 2023

Sub. Code: 4032

**M.Sc. MEDICAL PHYSICS
SECOND YEAR (From 2020-2021 onwards)
PAPER II – CLINICAL RADIATION BIOLOGY**

Q.P. Code: 284032

Time: Three hours

Maximum: 100 Marks

Answer ALL Questions

I. Elaborate on:

(2 x 20 = 40)

1. Professional aspects and role of Medical Physicists.
2. Biological effects of radiation and its dependence on dose, dose rate, type and energy of radiation.

II. Write notes on:

(10 x 6 = 60)

1. Chromosome segregation.
2. Organic constituents of cells.
3. Radiolytic products of water.
4. Hyperthermic sensitization.
5. Acute radiation sickness.
6. Somatic effects of radiation.
7. Method of spread of malignant disease.
8. Hormone therapy.
9. Principles of professional practice.
10. High LET radiation therapy.
