

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

[AHS 0523]

MAY 2023

Sub. Code: 2305

M.Sc. NUCLEAR MEDICINE TECHNOLOGY
FIRST YEAR
(Candidates admitted from 2020-2021 onwards)
PAPER VI – RADIATION BIOLOGY

Q.P. Code: 282305

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Define Linear Quadratic model. Write an essay on models in radiobiology.
2. Explain Radiation protection. How the radiation to the occupational worker to be minimised?

II. Write Short Notes on:

(10x6 = 60)

1. High LET radiation.
2. Radiation Effects on DNA.
3. Direct and indirect action of ionizing radiation.
4. Tissue composition of human body.
5. Cell metabolism.
6. Radiation carcinogenesis.
7. Target theory.
8. Tissue tolerance dose.
9. Oxygen Enhancement Ratio (OER).
10. Biodosimetry.
