

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

[AHS 1023]

OCTOBER 2023

Sub. Code: 2304

**M.Sc. NUCLEAR MEDICINE TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER V – RADIATION PHYSICS & RADIATION CHEMISTRY**

Q.P. Code: 282304

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Explain in details about the working principle and construction of ionization chamber.
2. Describe about different types of chromatography.

II. Write Short Notes on:

(10x6 = 60)

1. Write about atomic structure with example of I-131.
2. Explain about Compton Effect.
3. Write about law of disintegration.
4. Write about radioactivity.
5. The eluted activity of Tc-99m at 9.00 a.m is 10 mCi. What will be the activity at 5.00 p.m?
6. Explain about beta decay with example.
7. Write about covalent bonding.
8. Write about cyclotron.
9. Briefly explain crystallization.
10. Explain hydrogen ion concentration.
