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

[AHS 1022] **OCTOBER 2022** **Sub. Code: 2316**

M.Sc. NUCLEAR MEDICINE TECHNOLOGY
SECOND YEAR
(Candidates admitted from 2019-2020 & 2020-2021 onwards)
PAPER VI – HEALTH PHYSICS AND RADIATION PROTECTION

Q.P. Code: 282316

Time: Three hours **Maximum: 100 Marks**

Answer ALL Questions

I. Elaborate on: **(2 x 20 = 40)**

1. Explain in detail:
   a) Regulatory requirements for registering radioactive sources.
   b) Responsibilities of NM technologist and Medical Physicist.

2. Explain in detail planning and installation of a gamma camera in NM as per AERB.

II. Write notes on: **(10 x 6 = 60)**

1. Management of radioactive spills in NM.
2. Radioactive waste management in NM lab.
3. AERB recommended radiation dose limit for occupational worker and public.
4. Precautions during administration of radiopharmaceutical to children and nursing mothers.
5. Evaluation of radiation hazards.
6. As per AERB, what is considered as misadministration?
7. Define committed dose and explain its significance.
8. Radiation surveillance of NM lab and permitted leakage levels by AERB.
9. How to manage a radiation emergency?
10. Basic principles of radiation safety.

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