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

[AHS 1023]

OCTOBER 2023

Sub. Code: 2313

M.Sc. NUCLEAR MEDICINE TECHNOLOGY SECOND YEAR (From 2020-2021 onwards) PAPER III – THERAPEUTIC NUCLEAR MEDICINE TECHNIQUES

Q. P. Code: 282313

Maximum: 100 Marks

Answer ALL Questions

I. Elaborate on:

Time: Three hours

- 1. Radionuclide Alpha therapy.
- 2. Precautions, Preparations and post therapeutic instructions to be followed for I-131 radionuclide therapy and its significance.

II. Write notes on:

- 1. Radiation synovectomy and the various radionuclides used.
- 2. Compare PRRT therapy with lu177 and Y90.
- 3. P32 therapeutic applications.
- 4. Patient with metastatic medullary carcinoma thyroid suggest the nuclear medicine therapeutic procedure which will suit better and why?
- 5. How to minimize the radiation exposure to the personnel involved in radionuclide therapy?
- 6. Design a therapeutic radionuclide room as per AERB regulations.
- 7. Recent therapeutic radionuclides and radiopharmaceuticals in Nuclear Medicine.
- 8. Quality control tests that should be done before administering Lu177PSMA.
- 9. Management of Misadministration of a therapeutic radionuclide (i131).
- 10. Palliative radionuclide therapeutic radiopharmaceuticals.

$(2 \times 20 = 40)$

 $(10 \times 6 = 60)$