

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

[AHS 1022]

OCTOBER 2022

Sub. Code: 2314

**M.Sc. NUCLEAR MEDICINE TECHNOLOGY
SECOND YEAR**

(Candidates admitted from 2019-2020 & 2020-2021 onwards)

PAPER IV– QUALITY CONTROL OF NUCLEAR MEDICINE EQUIPMENT

Q. P. Code: 282314

Time: Three hours

Maximum : 100 Marks

Answer ALL Questions

I. Elaborate on:

(2 x 20 = 40)

1. The various NEMA recommended test for a SPECTCT gamma camera at the time of installation.
2. Elaborate on the frequency and importance of QC of a SPECTCT system.

II. Write notes on:

(10 x 6 = 60)

1. PET Normalization procedure.
2. Uniformity of gamma camera.
3. Linearity of Dose calibrator.
4. Iso-Response curve of a thyroid probe system.
5. Procedures involved in the preventive maintenance of a gamma camera.
6. Collimator Integrity test.
7. Streak artifact in PETCT.
8. Curvilinear cold artifact on PET image.
9. SPECT CT alignment test.
10. Geometric positioning and movement test of CT on a PETCT system.
