

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

[MD 0522]

MAY 2022

Sub. Code: 3017

M.D. DEGREE EXAMINATION

BRANCH XXIV – NUCLEAR MEDICINE

**PAPER II – RADIOPHARMACY, RADIOBIOLOGY, QUALITY ASSURANCE
IN MEDICAL IMAGING, RADIATION PROTECTION RADIATION SAFETY
INCLUDING NATIONAL AND INTERNATIONAL REGULATORY NORMS**

Q.P. Code: 203017

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Commonly used radiopharmaceuticals for myocardial perfusion studies.
2. Various tumour specific tracers for PET imaging.

II. Write notes on:

(10 x 7 = 70)

1. What is ALARA principle?
2. Accidental exposure to radionuclides.
3. Permissible limits of radiation exposure in occupation workers.
4. Docker dosimeter and film leadge.
5. Various traces used in Meletas Scientigrathy.
6. SPECT tracers and their applications.
7. Methods of internal dosimetry.
8. Stochastic and deterministic effects of coising radiation.
9. 68 Ga DOTATATE.
10. Alpha emitting radionuclides for therapy.
