

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

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 3018

M.D. DEGREE EXAMINATION

BRANCH XXIV – NUCLEAR MEDICINE

**PAPER III – CLINICAL NUCLEAR MEDICINE INCLUDING (IN VIVO AND
INVITRO STUDIES), CARDIOVASCULAR, NEUROLOGY,
ENDOCRINOLOGY, GASTROENTEROLOGY, ONCOLOGY, INFECTION
AND INFLAMMATION, GENITOURINARY, MUSCULOSKELETAL AND
RADIONUCLIDE THERAPY**

Q.P. Code: 203018

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. What are the indications for myocardial perfusion scintigraphy?
Explain the techniques of stress myocardial perfusion scintigraphy.
2. The pathology of bone disease with indications for bone scan, patient preparation and radiotracer dosage with their administration for bone scan.

II. Write notes on:

(10 x 7 = 70)

1. a) Thyroxin after total thyroidectomy in cancer thyroid patients.
b) Radiosynovectomy.
2. a) Low dose I-131 scan and the imaging and processing protocol.
b) Inter and intraictal scan in epilepsy.
3. a) Perchlorate discharge test.
b) Radio aerosol in ventilation scan.
4. a) Vesicoureteric reflex.
b) Infarct avid imaging.
5. a) In vitro nuclear medicine test used to estimate T3, T4, TSH.
b) Au198 application.
6. a) Interventional drugs in scintigraphic procedures.
b) Nuclear medicine procedure for biliary atresia.
7. a) Leucocyte labelling study.
b) Scrotal scintigraphy.
8. a) Hepatic artery perfusion test.
b) Heat damaged RBC study.
9. a) Lingual thyroid study.
b) Sentinel node detection.
10. a) Venography.
b) ⁵¹Cr applications in nuclear medicine procedures.
