

NUCLEAR MEDICINE

PAPER – IV

NM/D/16/24/IV

Time : 3 hours

Max. Marks : 100

Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. Recent advances in Radionuclide imaging of musculoskeletal infections with their merits and demerits. 10
2. Role of Hybrid PET-MRI in brain tumor evaluation: Present applications and future prospects with emphasis on newer radiopharmaceuticals. 10
3. a) LV dyssynchrony. 5+5
b) Role of MUGA scan in evaluation of post chemo cardiotoxicity.
4. a) Evaluation of mesial temporal sclerosis. 5+5
b) Quantitative assessment of PET MBF.
5. Pharmacokinetics, pharmacodynamics, clinical applications, side effects and contraindications of IV Analaprilat 5+5
6. a) Axillary Reverse Mapping. 5+5
b) Tau imaging in dementia
7. a) Beta amyloid imaging. 5+5
b) Stress FDG Myocardial Perfusion Imaging.
8. a) ⁶⁸Ga PSMA in prostate cancer. 5+5
b) Radionuclide imaging of insulinoma.
9. a) Avalanche Photodiode vs PMT. 5+5
b) CZT detectors: Advantages and disadvantages.
10. a) eLORA. 3+7
b) BRAF mutation and its clinical applications.
