

NUCLEAR MEDICINE

PAPER – IV

NM/J/15/24/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.	Artifacts in PET-CT.	10
2.	a) Attenuation correction methods used in PET-MRI, b) Their advantages & disadvantages.	5+5
3.	a) Use of amino acid infusion in PRRT. b) Regadanosine.	5+5
4.	Dose reduction algorithms in myocardial perfusion studies.	10
5.	a) TOF b) DICOM	5+5
6.	a) Non FDG PET tracers used in neurological indications. b) NIS (Sodium Iodine Symporter).	6+4
7.	Role of PET-CT in carcinoma of unknown primary.	10
8.	a) Respiratory Gating. b) SUV and its pitfalls.	5+5
9.	Advantages & demerits of PET guided RTP in: a) Lung cancer. b) Head & neck malignancies. c) Gynecological malignancies .	3+4+3
10.	a) ^{99m} Tc TRODAT-1. b) Alpha Emitters in radionuclide therapy.	5+5
