

NUCLEAR MEDICINE

PAPER – II

NM/D/16/24/II

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. Mention various methods of radio-labelling with ^{99m}Tc , positron emitters and radiopharmaceuticals for therapy. 2+4+4
2. a) ^{11}C – Choline. 2.5x4
b) ^{99m}Tc HYNIC-TOC.
c) ^{99m}Tc (V) DMSA.
d) ^{18}F DOPA.
3. a) Scintimammography - techniques and clinical applications. 5+5
b) Clinical application of ^{18}F FLT.
4. a) ^{123}I radiopharmaceuticals and their clinical applications. 5+5
b) QC of ^{18}F FDG.
5. a) TNM staging of lung cancer. 3+7
b) Role of PET-CET in the diagnosis and management of Ca lung.
6. a) Gleason's score and its applications in Nuclear Medicine evaluation. 5+5
b) Define CRPC and its importance from Nuclear Medicine point of view.
7. a) Mediastinal nodal stations. 5+5
b) Role of SPECT-CT in sentinel node imaging.
8. a) Define SUV. Enumerate various factors influencing the value and its clinical significance. (1+2+2)+5
b) Management algorithm of CT contrast related anaphylactic reactions.
9. a) Enumerate various Nuclear Medicine techniques in evaluating the GIT transit. 3+7
b) Role of Nuclear Medicine in the management of esophageal carcinoma.
10. a) Assessment of myocardial viability by nuclear imaging. 5+5
b) Clinical applications of PET/MR in Nuclear Cardiology.
