NUCLEAR MEDICINE

PAPER – IV

NM/J/17/24/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. Role of Nuclear Medicine in movement disorders. 10

2. a) CZT detectors 5+5
   b) SiPMT

3. a) If a thyroid cancer patient dies in your isolation ward room after receiving 200mCi of Iodine-131, 48 hours after administration, how would handle the situation? 5+5
   b) The duties and responsibilities of RSO.

4. a) Cardiac flow reserve assessment. 2.5x4
   b) Cardiac dyssynchrony.
   c) Adriamycin induced cardiotoxicity assessment.
   d) ^{82}Rb PET imaging.

5. Role of Nuclear Medicine in the management of metastatic castration resistant prostate cancer (MCRPC). 10

6. a) ICRP 2.5x4
   b) MIRD
   c) NCRP
   d) AERB

7. a) Delay and Decay Tank 2.5x4
   b) eLORA
   c) Radiopharmacy Committee
   d) Quality Control of Radionuclide generators

8. a) Compare and contrast the PET/MR vs PET/CT. 6+4
   b) The need of PET/MR in India- PET/MR is luxury or bare necessity.

P.T.O.

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9. a) TENIS syndrome 2.5x4
   b) Hand foot syndrome
   c) Haemopoeitic toxicity of ^{131}I therapy.
   d) 99mTc - HYNIC-TOC Vs 68 Ga DOTA-NOC in NET

10. Imaging features of: 3+3+4
    a) Atypical carcinoid
    b) Glucagonoma
    c) Insulinoma

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