

**NUCLEAR MEDICINE**

**PAPER-III**

Time: 3 hours  
Max. Marks:100

NM/D/20/24/III

**Important Instructions:**

- *You are provided with 5 answer sheet booklets. Each individual answer sheet booklet consists of 10 pages excluding the covering jackets.*
- *Answers to all the questions must be attempted within these 5 answer sheet booklets which must be later tagged together at the end of the exam.*
- *No additional supplementary answer sheet booklet will be provided.*
- *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. a) Hepatobiliary scintigraphy in Sphincter of Oddi dysfunction. 5+5  
b) Lymphoscintigraphy.
2. Role of nuclear medicine imaging in movement disorders. 10
3. Bone scintigraphy in: 5+5  
a) Regional pain syndrome.  
b) Diabetic foot.
4. Genetics of differentiated thyroid cancer both in adults and in children. 10
5. Describe the causes of thyrotoxicosis. Discuss how to manage various thyroiditis. 4+6
6. Role of PET/CT in staging and response assessment of non-small cell lung cancers. 10
7. How PET/CT has changed the management of metastatic castration-resistant prostate cancer? 10
8. Discuss the various types of paragangliomas, imaging options and mutation status that helps current management strategies. 3+3+4
9. a) Latest WHO grading of neuro-endocrine tumors. 5+5  
b) Carcinoid tumors of lungs.
10. Recent WHO classification of brain tumors. Discuss molecular markers and their implication in the nuclear imaging strategies. 5+5

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