 NATIONAL BOARD OF EXAMINATIONS

NUCLEAR MEDICINE

PAPER-IV

Time: 3 hours NM/D/20/24/IV
Max. Marks:100

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) Total lesion glycolysis (TLG). 5+5
   b) Metabolic tumor volume (MTV).

2. Rhenium-188 based radiopharmaceuticals and their uses. 5+5

3. Alpha radionuclide therapy with emphasis on current status and future potential. 10

4. Compare and contrast the multiparametric-MR versus nuclear imaging in prostate cancer. 10

5. a) Amyloid imaging. 5+5
   b) Lewy body dementia (LBD).

6. Discuss left ventricular dyssynchrony in patients with heart failure: pathophysiology and diagnosis. 10

7. Role of nuclear medicine imaging in triple negative breast cancer (TNBC) managements. 10

8. a) DLBCL vs. ALCL 5+5
   b) TARE vs. TACE

9. What is the current ATA definition of radioiodine refractory DTC? Discuss the management strategies of Radioiodine refractory DTC. 5+5

10. Neuroimaging characteristics of: 4+3+3
    a) Hippocampal sclerosis
    b) Focal cortical dysplasia
    c) DNET

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