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. How would you manage pulmonary metastasis from differentiated carcinoma thyroid in children in the light of new 2015 ATA guidelines?

2. Use of Nuclear Medicine techniques in:
   a) Hyperparathyroidism.
   b) Pleural mesothelioma.

3. Role of Nuclear Medicine in the management of neuroblastomas.

4. Nuclear medicine in the diagnosis of:
   a) Meningiomas.
   b) Fever of unknown origin.


6. Various tyrosine kinase inhibitors in the management of radioiodine resistant thyroid cancer.

7. a) Ra-223
   b) Lu-177

8. Radionuclide imaging of early breast cancer stage(I/II).

9. Role of FDG PET/CT in the management of stage III/IV non-small cell lung cancer (NSCLC).

10. A 45-year-old male non-smoker recently developed level II (R) nodal mass. On FNAC it turns out to be SCC. What shall be the Nuclear Medicine technique(s) in the management of this patient?