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.

1. Define solitary pulmonary nodule. Enumerate its causes. Discuss the radiological work up of a solitary nodule highlighting the features which enable to differentiate between benign and malignant nodules.

2. A 30 year old female patient presented with history of cough and one episode of haemoptysis. Her chest X-ray showed a cavitory lesion measuring 3cm in left mid zone. Enumerate the possible causes. How will you proceed with radiological evaluation in this case?

3. Name the anatomical structures which contribute to the hilar shadow seen on a frontal chest radiograph. Enumerate the causes of unilateral large hilum in a fifty year old male. Describe the imaging findings in any two pathological causes.

4. A twenty year old female with history of fever showed an anterior mediastinal and right hilar mass on chest X-ray. Enumerate the causes. Discuss the radiological finding which shall help you in formulating your differential diagnosis. Describe in brief features which are useful in differentiating Hodgkin’s disease and non Hodgkin’s lymphoma.

5. Describe the radiological anatomy of diaphragm. Enumerate various types of diaphragmatic hernias. Discuss the imaging findings in any two hernias which can be seen in a forty year old patient.

6. Enumerate various causes of bilateral weak femoral arterial pulsations in a twenty year old female patient. Describe the imaging findings in any two important causes.