

**RADIO DIAGNOSIS**  
**PAPER-IV**

TIME: 3 HOURS  
MAX. MARKS: 100

RDG/D/18/40/IV

**IMPORTANT INSTRUCTIONS**

- This question paper consists of 10 questions divided into Part “A” and part “B”, each part containing 5 questions.
- Answers to questions of part A and part B are to be strictly attempted in separate answer sheet(s) and the main + supplementary answer sheet(s) used for each part must be tagged separately.
- Answers to question(s) of Part A attempted in answer sheet(s) of part B or Vice versa shall not be evaluated.
- Answer sheets of Part A and Part B are not to be tagged together.
- Part A and Part B should be mentioned only on the covering page of the respective answer sheets.
- 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:**

**PART A**

1. Discuss the physical principles of the ultrasound contrast media. Enumerate the safety issues and recommendations regarding their clinical use. 5+5
2. Define 4DCT technique and enumerate the situations in which it is used and discuss in detail the technique of 4DCT of parathyroid. 2+3+5
3. Discuss the factors which tend to affect the image quality on a computed tomography (CT) scan. Describe the diverse radiation dose reduction strategies which can be employed while carrying out a thoracic CT scan. 5+5
4. Enumerate the various post-processing techniques which can be used during a thoracic computed tomography (CT) examination. State the clinical utility of each of these post-processing techniques citing examples. 5+5
5. Enumerate the various pulse sequences used in magnetic resonance imaging. State the clinical utility of each pulse sequence citing examples. 5+5

P.T.O.