



RADIODIAGNOSIS

PAPER – IV

RDG/J/14/40/IV

Time : 3 hours
Max. Marks : 100

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. Enumerate the different types of X-Ray tubes. What is the difference between a conventional X-Ray tube and a mammography tube? Briefly describe mammography tube with the help of a neat labeled diagram. 2+4+4
2. What are the cardinal principles of radiation protection? What methods would you use to decrease exposure in fluoroscopy? 6+4
3. a) Personal Dosimeters 5+5
b) Tissue harmonic imaging
4. a) MR contrast for liver imaging 5+5
b) Contrast induced nephropathy and methods to prevent it.
5. a) Imaging of hemobilia and interventions. 5+5
b) Principles and applications of RF ablation
6. a) CT perfusion in acute stroke 5+5
b) Principles of functional MR imaging
7. a) Renal isotope scanning 5+5
b) Tomosynthesis in mammography
8. Techniques of ultrasound elastography and its applications. 5+5
9. Advantages and disadvantages of computed radiography and direct digital radiography. 10
10. Advances in CT technology to decrease the radiation dose in children. What is CT Dose Index (CTDI)? 8+2
