

RADIODIAGNOSIS

PAPER-IV

TIME: 3 HOURS
MAX. MARKS: 100

RDG/J/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. Draw labelled diagram(s) of the suprahyoid neck spaces. 10
2. A patient develops severe hypotension immediately following the intravenous administration of an iodinated water-soluble contrast medium. How would you manage such a patient? 10
3. Define the terms “Roentgen”, “Rad”, “Gray” and “Sievert”. State the acceptable upper limits of radiation exposure in a radiation worker as per the AERB guidelines. 8+2
4. What are the types of nephrotoxicity reactions associated with water-soluble contrast media and what are their defining features? What are the proposed mechanisms which produce contrast induced nephrotoxicity? 6+4
5. Discuss the pre-procedure work-up, procedure, and the post-procedure care in a patient scheduled to undergo a trucut/core biopsy for a hepatic mass lesion. 3+4+3

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Please read carefully the important instructions mentioned on Page '1'

- Answers to questions of Part A and part B are to be strictly attempted in separate answer sheets and the main + supplementary answer sheets used for each part must be tagged separately.
- Answers to question(s) of Part A attempted in answer sheets of Part B or vice versa shall not be evaluated.

PART B

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| 6. State the age of appearance and fusion of various epiphyses around the elbow joint on plain radiographs in a male subject. Discuss how radiography can help in gender determination in an adult subject. | 5+5 |
| 7. Describe the physical principle behind various diffusion weighted imaging techniques. Discuss their clinical usefulness. | 4+6 |
| 8. Define the statistical terms "accuracy", "positive predictive value" and "negative predictive value", citing their clinical usefulness. | 4+3+3 |
| 9. Enumerate the constituents of ultrasound jelly. State the significance of each constituent. | 10 |
| 10. Enumerate the MR contrast agents. Discuss their potential adverse effects. | 3+7 |
