

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

TIME: 3 HOURS  
MAX. MARKS: 100

RDG/J/19/40/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 a diagram of the hepatic segments. Describe the role of radiology in the work-up of a liver transplant. 5+5
2. Enumerate the indications of Percutaneous Nephrostomy (PCN). Describe the technique. 4+6
3. Radiofrequency Ablation (RFA) in liver masses - the physics and the technique. 5+5
4. Describe the AERB guidelines to set up a Radiology centre for a single static X-ray machine. Supplement it with a diagram. 6+4
5. What are various methods available for dose reduction in CT? Discuss the technique of CT perfusion imaging. 4+6

**P.T.O.**

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

**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.  | What is MRI fringe field? How can the MRI safety risks be minimized in your department?  | 3+7 |
| 7.  | Classify iodinated contrast media used in diagnostic imaging. What steps will you take to prevent contrast induced nephropathy?                          | 5+5 |
| 8.  | What are the important parameters of image quality in digital radiography? What are the advantages of digital radiography over conventional radiography? | 5+5 |
| 9.  | Describe MRI contrast media. What is Nano diamond?   | 8+2 |
| 10. | Mention the basic physics behind Positron Emission Tomography (PET). Describe the role of PET in staging of lymphoma.                                    | 5+5 |

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