

Rajiv Gandhi University of Health Sciences, Karnataka
III Year B.Sc. (M.I.T) Degree Examination – 27-Oct-2025

Time: Three Hours

Max. Marks: 100 Marks

Diagnostic Imaging Techniques and Modalities (RS-4)

Q.P. CODE: 3293

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice)

2 x 10 = 20 Marks

1. MRI basic principles.
2. Explain the production of radionuclides.

OR

Write about the CECT abdominal protocols for hepatocellular carcinoma.

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. CT contrast media administration techniques.
4. Discuss and differentiate second and third generation of CT.
5. STIR MRI sequence.

OR

Artefacts in USG.

6. Discuss the CT artefacts.
7. Cardiac MRI.
8. CT guided procedures.
9. Discuss the piezoelectric effect with diagrams.
10. Explain flow phenomena.

OR

Flow phenomena compensation.

11. Write about the patient preparations for MRI scan.
12. PET scan.

SHORT ANSWER

10 x 3 = 30 Marks

13. TOF MRA.
14. Matrix.
15. Window width and window level.
16. Half life.
17. Anode angle.
18. Types of magnets.
19. RF transmitter and RF receiver.
20. Gradient coil.
21. SWI sequence.
22. Turbo spin echo.
