

Rajiv Gandhi University of Health Sciences, Karnataka
Third Year B.Sc. Medical Imaging Technology Degree Examination – 06-May-2026

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. Describe in detail the MRI instrumentation
2. Describe briefly physics of Doppler and different methods of doppler imaging

OR

Describe a principle on which a CT scan machine works. What is MDCT?

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. MRI contrast agents
4. CT generations
5. Transducers
6. CT angiography
7. Shum coils.
8. Colour doppler artifacts
9. Computed Radiography and Digital Radiography (CR & DR)
10. Radiation hazards

OR

T1 and T2 in MRI

11. Principles of tracer technique
12. Radiopharmaceuticals and their uses

SHORT ANSWER

10 x 3 = 30 Marks

13. Acoustic coupling media
14. Ultrasound probe
15. Multihole collimator
16. Radionuclides
17. Signal to noise ratio
18. Pre-MRI check list
19. Types of contact used in CT scan
20. Atomic energy regulatory board
21. Volume rendering tools
22. Radio frequency receiver (MRI)
