

Rajiv Gandhi University of Health Sciences, Karnataka
Third Year B.Sc. Medical Imaging Technology Degree Examination – 15-May-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. Discuss multislice computed tomography
2. What are contrast media? How do you classify them mention the adverse effects?

OR

Discuss the principles of nuclear medicine imaging and instrumentation

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. MRI angiography
4. Ultra sound artifacts
5. Types of transducers probe and its application

OR

Gradient coils

6. Safety dose and radiation dose in CT scan
7. Quality check and maintenance in CT
8. 2D, 3D ultrasound
9. SPECT
10. USG guided procedures – patient preparation

OR

Piezoelectric crystal

11. Power doppler
12. Precautions while handling radionuclide

SHORT ANSWER

10 x 3 = 30 Marks

13. Radio frequency transmitter (MRI)
14. Rectilinear scanner
15. Perfusions in MRI scan
16. Bowel preparation for abdominal ultrasound
17. CT console
18. Photomultipliers
19. Motion artifact
20. Mechanical transducers
21. Free induction decay
22. Larmor frequency
