

**DIPLOMA IN MEDICAL RADIO DIAGNOSIS (DMRD)
EXAMINATION**

MEDICAL RADIATION PHYSICS AS APPLIED TO RADIO DIAGNOSIS

Q.P. Code: 343019

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss factors affecting scatter radiation and techniques to minimize scatter radiation.
2. Recent advances in ultrasound imaging technique and brief about ultrasound elastography and tissue harmonic imaging.

II. Write notes on:

(10 x 7 = 70)

1. Define contrast induced nephropathy. Discuss about the risk factors, management and prevention of the same.
2. Liver specific MR contrast agents.
3. Principles of planning of diagnostic X-ray installations.
4. Explain the basics of multidetector CT.
5. Write about CR cassettes.
6. Write about commonly used MR angiographic techniques.
7. Write about various radiation units and maximum permissible dose for radiation workers.
8. K edge filters in diagnostic radiology.
9. Write about any four common CT artefacts.
10. Emergency drugs with doses that should be available in radiology department.
