

[LL 136]

OCTOBER 2017

Sub. Code: 2031

M.D. DEGREE EXAMINATION
BRANCH VIII – RADIO DIAGNOSIS
PAPER I – MEDICAL RADIATION PHYSICS AS APPLIED TO
RADIO DIAGNOSIS

Q.P. Code :202031

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Construction of conventional X-ray Tube, Dedicated digital X-ray advantages.
2. Describe the phenomenon of nuclear magnetic resonance. Describe the salient parts of a superconducting MRI system.

II. Write notes on:

(10 x 7 = 70)

1. Role of collimators and filters in Radiology.
2. CT dose index.
3. Interaction of ultrasound with matter.
4. Anode heel effect.
5. Image reconstruction Algorithms in CT.
6. Diffusion weighted images in MRI.
7. Compton scatter.
8. Intensifying screens.
9. Characteristic curve of X-ray mammography.
10. Radiation dose limits for patients and radiation worker.
