

**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. Discuss the principles and physics of ultrasound and Doppler imaging.
2. Planning radiology department for a 750 bedded multi-specialty hospital.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Dark room plan for wet processing of X-ray films.
2. Spin echo sequence.
3. X-ray films – Types and characteristics.
4. The ways to minimize radiation for children during radiographic investigations.
5. Safety precautions during MRI.
6. Spiral CT.
7. Discuss the artefacts in MR imaging.
8. Rotating anode X-ray tube.
9. Photoelectric effect.
10. PACS in a Radiology Dept.

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