

[LO 0519]

MAY 2019

Sub. Code: 1801

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER I – RADIOLOGICAL PHYSICS**

*Q.P. Code : 281801*

**Time: Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe the various interactions of ionizing radiation with matter.
2. Principles of Radiation detection devices and discuss in detail about TLD.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Rotating anode.
2. Grid controlled X-ray tubes.
3. Radiation units for exposure.
4. Space charge effect.
5. Advances in X-ray tubes.
6. Hounsfield unit.
7. Factors influencing the quality and intensity of X-rays.
8. T1 and T2 relaxation.
9. Beam restrictor and collimator.
10. Basics of fluoroscopy.

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