

[LC 0413]

APRIL 2013

Sub. Code: 4015

M.Sc (MEDICAL PHYSICS) DEGREE EXAMINATION
(Revised Regulations for Candidates admitted from 2010-2011)

FIRST YEAR

Paper V – RADIATION DETECTORS AND INSTRUMENTATION

Q.P. Code : 284015

Time : Three hours

Maximum :100marks

I. Elaborate on:

(2x20=40)

1. Write in detail about the gas filled detectors.
2. (a) Explain the principle of luminescence Dosimetry.
(b) Write in detail about.
(i) TLD (ii) OSLD and (iii) Radiophotoluminescent Dosimeters.

II. Write notes on :

(10X6=60)

1. Calorimetry.
2. JFET.
3. Radio isotope calibrator.
4. Stem effect and stem correction for condenser chambers.
5. Film dosimetry.
6. Radiation Field Analyser.
7. Liquid Scintillation Counting.
8. Construction of a thimble chamber with a neat diagram.
9. Personnel Monitoring.
10. Contamination Monitors.
