

[LN 1018]

OCTOBER 2018

Sub. Code: 4014

**M.Sc. MEDICAL PHYSICS EXAMS  
FIRST YEAR  
PAPER IV – RADIATION DOSIMETRY AND STANDARDIZATION**

*Q.P. Code : 284014*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:** **(2 x 20 = 40)**

1. Explain how IAEA's TRS-398 protocol differ from TG-51.
2. Explain the mathematical derivation for Bragg-Gray theory principle.

**II. Write notes on:** **(10 x 6 = 60)**

1. Tissue Weighting Factor.
2. High Energy Beam Quality Index.
3. Standardisation of Beta emitters.
4. Neutron Dosimetry Principles.
5. Parallel plate chambers.
6. Beta Gamma Coincidence counting.
7. Limitations of Free air ion Chambers.
8. Temperature and Pressure correction.
9. Beer-Lambert's Law.
10. Bragg-Gray theory.

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