

(LO 140)

MAY 2019

Sub. Code: 2035

M.D. DEGREE EXAMINATION
BRANCH IX – RADIO THERAPY

**PAPER I – MEDICAL RADIATION PHYSICS AS APPLIED TO
RADIOTHERAPY AND RADIATION BIOLOGY**

Q.P. Code: 202035

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the biological basis of fractionation and the various types of altered fractionation.
2. Describe intensity modulated radiotherapy and clinical use.

II. Write notes on:

(10 x 7 = 70)

1. Interstitial brachytherapy.
2. Compensators.
3. Equivalent dose.
4. Isodose curves of gamma rays.
5. Linear quadratic model.
6. Radioprotectors.
7. Hypoxic cell sensitizers.
8. Proton therapy.
9. Low level radiation effects.
10. Stereotactic body radiotherapy.
