

**B.Sc. RADIOTHERAPY TECHNOLOGY**  
(New Syllabus 2014-2015)

**SECOND YEAR**

**PAPER I – TUMOR PATHOLOGY AND RADIOTHERAPY APPLICATIONS**

*Q.P. Code: 801931*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All Questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. What is carcinogenesis? Mechanism of invasion of ECM and metastasis?
2. Discuss in detail about etiology, pathogenesis, dose fractionation, field border and treatment techniques in treating carcinoma cervix?
3. Total body irradiation (TB).

**II. Write Notes on:**

**(8 x 5 = 40)**

1. Radiotherapy simulation for cranial irradiation.
2. Use of wedges in external beam therapy.
3. Precancerous lesion.
4. Mantle field RT simulation.
5. What are the chronic inflammatory conditions associated with tumor formation?
6. IMRT technique.
7. Modified stanford technique.
8. Role of radiotherapy in benign conditions.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Half value layer HVL.
2. Laser in patient positioning.
3. SAD technique.
4. Grading of skin reaction.
5. Point A and Point B.
6. Apoptosis.
7. Cancer cachexia.
8. Baretts esophagus.
9. C0-60 in brachytherapy.
10. Hypofractionation.

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