

**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. Describe the process of Carcinogenesis.
2. Elaborate on the anatomy, lymphatic drainage, pathology and clinical features of carcinoma of oesophagus.
3. Staging, pathology and methods of delivering radiation for carcinoma cervix.

**II. Write Notes on:**

**(8 x 5 = 40)**

1. Differentiate benign and malignant neoplasms.
2. What are chemical carcinogens? Give examples.
3. Discuss the boost techniques of carcinoma breast after breast conservation surgery and completion of whole breast irradiation.
4. Hormonal therapy and cancer.
5. Discuss various palliative radiotherapy schedules for bone metastases.
6. How do you treat the posterior neck after spine tolerance dose in conventional head and neck radiotherapy?
7. Discuss the radiotherapy technique used for treating stage I and II seminomas.
8. What are the malignant tumours of urinary bladder? List the investigations needed for diagnosis and staging.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Define hypertrophy and hyperplasia and give on example for each.
2. Radiotherapy technique of soft tissue sarcoma after limb salvage surgery.
3. List the side effects of radiotherapy treatment to carcinoma of pelvis.
4. Name three childhood malignancies.
5. Stochastic effect of radiation.
6. What are occupational cancers? Mention two examples.
7. What is neoadjuvant chemotherapy? Give an example.
8. Radiotherapy technique of carcinoma of parotid.
9. Classification of brain tumours.
10. Discuss the pathology of skin cancer.

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