

**March 2009**

**[KU 141]**

**Sub. Code: 2036**

**M.D. DEGREE EXAMINATION**  
**Branch IX – RADIO THERAPY**  
**(Candidates admitted upto 2007-2008)**

**Paper II – GENERAL PRINCIPLES OF RADIOTHERAPY**  
**INCLUDING RADIOBIOLOGY AND ONCOLOGY**

*Q.P. Code : 202036*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions :** **(2 x 20 = 40)**

1. Discuss in detail the basis or principles behind multi modality treatment in cancer.
  
2. Discuss in detail the functions and differences between tele-cobalt unit and Linear Accelerator.

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

1. Simulations in Radiotherapy.
2. Mould ram Technique.
3. RBE.
4. Adjuvant radiations.
5. Chemo- radiation.
6. Electron beam therapy.
7. Radio sensitizers.
8. Hyperthermia.
9. Oxygen effect on radiation.
10. Maximum permissible dose.

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**September 2009**

**[KV 141]**

**Sub. Code: 2036**

**M.D. DEGREE EXAMINATION**  
**Branch IX – RADIO THERAPY**  
**(Candidates admitted upto 2007-2008)**

**Paper II – GENERAL PRINCIPLES OF RADIOTHERAPY**  
**INCLUDING RADIOBIOLOGY AND ONCOLOGY**

*Q.P. Code : 202036*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions :** **(2 x 20 = 40)**

1. Discuss tissue tolerance dose. Classify tumours in relation to their response to radiation.
  
2. Explain lymphatic drainage of penis. How would you manage a middle aged man with early penile cancer?

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

1. Cervical intraepithelial neoplasia.
2. Radiation proctitis.
3. Squamous carcinoma skin.
4. Palliative radiotherapy – principles and practice.
5. Potentially lethal damage.
6. Lymphatic spread in esophageal cancer.
7. Hormonal therapy in breast cancer.
8. IMRT.
9. HDR versus LDR.
10. Immobilization in radiotherapy.

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March 2010

[KW 141]

Sub. Code: 2036

**M.D. DEGREE EXAMINATION**

**Branch IX – RADIO THERAPY**

**Paper II – (for candidates admitted upto 2007-2008) and  
Part II / Paper I – (for candidates admitted from 2008-2009 onwards)**

**GENERAL PRINCIPLES OF RADIOTHERAPY INCLUDING  
RADIOBIOLOGY AND ONCOLOGY**

*Q.P. Code : 202036*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions : (2 x 20 = 40)**

1. Discuss chemo-radiotherapy in the management of carcinoma cervix.
2. Discuss the cell cycle and its relevance to radiotherapy and chemotherapy.

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

1. Intra-operative radiotherapy.
2. Oxygen enhancement ratio (OER).
3. Clinical trials.
4. Xeroderma pigmentosum.
5. CHART.
6. Mammography.
7. SAD and SSD techniques.
8. Apoptosis.
9. Radio protectors.
10. Tumor markers.

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