Code No: 07A72309 **R07** **Set No. 2**

**IV B.Tech I Semester Examinations,November 2010**
**CANCER BIOLOGY**
**Bio-Technology**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Explain the metabolic pathways for carcinogen metabolism? [16]
2. Explain:
   (a) DNA as target for UV damage
   (b) UV induced DNA lesions. [8+8]
3. Describe different classes of isotopes with potential use in radio immunotherapy. [16]
4. Define neoplasia? Explain the classification of different types of tumours? [16]
5. Write short notes on:
   (a) Protein interaction domains.
   (b) Chromosomal translocations. [8+8]
6. Write short notes on:
   (a) Mammography.
   (b) Radiography. [8+8]
7. How tumour cells can be formed? Explain the dissemination tumour cells by different routes? [16]
8. Describe the process of haemostasis Include examples of disease process. [16]

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Code No: 07A72309 **R07** **Set No. 4**

**IV B.Tech I Semester Examinations,November 2010**
**CANCER BIOLOGY**
**Bio-Technology**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Differentiate the terminology of antioncogene and tumour suppressor gene? Explain oncogenes. [16]
2. What are the different diagnostic aspects of identifying tumors? Explain them? [16]
3. Discuss the role of chemical carcinogenesis and mutations in human cancer? [16]
4. Write short notes on:
   (a) Radioimmunotherapy in cancer.
   (b) ADEPT. [8+8]
5. Describe the gene regulation of invasion and metastasis. [16]
6. What are various issues in radiation induced human carcinogenesis? [16]
7. Describe any tumor model that uses regulatable oncogene. [16]
8. Explain:
   (a) DNA based invitro diagnosis of cancer.
   (b) Methods involved to predict the aggression of cancer. [8+8]

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Code No: 07A72309 **R07** **Set No. 1**

**IV B.Tech I Semester Examinations,November 2010**
**CANCER BIOLOGY**
**Bio-Technology**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. What are the sources of energy for external radiation therapy and internal radiation therapy? [16]
2. Explain in detail the different experimental methods for tumour identification?[16]
3. Write short notes on:
   (a) Angiogenesis.
   (b) Tumor viruses and cancer. [8+8]
4. Explain the terminology:
   (a) Immortalization
   (b) Transformation. [8+8]
5. Explain the chromosomal damage, cell mutation and genetic instability during radiation exposure? [16]
6. What is the role of tumor suppressor genes in tumorogenesis and metastasis? [16]
7. Explain:
   (a) Role of Protein Microarray in cancer diagnosis?
   (b) Significance of tissue arrays in cancer diagnos. [8+8]
8. What is the significance of intracellular signaling (ICS)? Explain the role of GTP binding in the ICS? [16]

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Code No: 07A72309 **R07** **Set No. 3**

**IV B.Tech I Semester Examinations,November 2010**
**CANCER BIOLOGY**
**Bio-Technology**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. Explain:
   (a) PI-3kinase
   (b) RTKs. [8+8]
2. What are the various target organs for chemical carcinogens and discuss? [16]
3. Write short notes on :
   (a) Catenins.
   (b) Cadherins. [8+8]
4. Write short notes on:
   (a) Personalized cancer treatment.
   (b) Sequelae of cancer treatment. [8+8]
5. Neoplasia is a clonal process-Discuss the evidence for and against the statement. [16]
6. Discuss the terms tumour suppression and angiogenesis? [16]
7. Explain:
   (a) Tissue arrays.
   (b) Comparative genome hybridization. [8+8]
8. What are the different organs in which ionizing radiation can induce cancer Explain the changes in organs at least with one example? [16]

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