

SIXTH SEMESTR B.TECH DEGREE EXAMINATION
BIOTECHNOLOGY AND BIOCHEMICAL ENGINEERING
ELECTIVE 1 13.606.3 CANCER BIOLOGY

Time : 3hrs

Max marks:100

Part A. Answer all questions. Each question carries 2 marks.

1. Explain the role of cyclins and cdk in cell division.
2. What is micrometastasis.
3. Give the action of any two physical carcinogens.
4. How is cancer initiated?
5. What is oncogene collaboration?
6. Write a short note on mitotic inhibitors in treatment of cancer.
7. How is cell adhesion important with respect to cancer?
8. How do you diagnose lung cancer?
9. Explain the role of MAPK in cancer.
10. Describe the seed and soil theory.

Part B (Answer any one full question from each module)

Module 1.

11. Explain the role of chemicals in causing cancer.....(20)

Or

12. Explain the role of P53 and Rb protein in cancer.....(20)

Module 2

13. Explain the various growth factors and growth factor receptors that are oncogenes.....(20)

Or

14. Write a note on viruses and cancer.....(20)

Module 3

15. Explain the role of various proteases in causing cancer.....(20).

Or

16. Explain about metastasis and invasion.....(20)

Module 4

17. Explain the various techniques used in detection of cancer.....(20)

Or

18. Explain the radiation treatment for cancer.....(20)