**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

 (Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May 2010**

**Subject Title: CANCER BIOLOGY Time: 3 hours**

**Subject Code: 09BT253 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. Site any one of the molecular tools used in diagnosis of cancer.

2. Give any two tumor markers.

3. What are Oncogenes?

4. What is Apoptosis?

5. Mention the role of retroviruses in cancer.

6. What is a Malignant Tumor?

7. Define EGFR.

8. What is metastatic cascade?

9. Define the term “Colonization”.

10. Mention any two human carcinogens.

**PART – B (5 x 3 = 15 MARKS)**

11. Discuss about different forms of cancer.

12. Differentiate between physical carcinogenesis and chemical carcinogenesis.

13. Write about Oncogenes activity.

14. Write short notes on membrane disruption.

15. Explain about gene therapy.

**PART – C (5 x 15 = 75 MARKS)**

16. Explain in detail about on tumor surpressor genes.

(OR)

17. Discuss in detail about of mutation.

18. Discuss in detail about mechanisms of radiation carcinogenesis.

(OR)

19. Explain in detail about carcinogenesis.

20. a. Explain about functions of proto oncogene. (5)

 b. Explain about growth factor receptor. (10)

(OR)

21. Give some example of oncogenes. Draw neatly the retrovirus life cycle and explain it.

22. Write briefly about proteinases and tumour cell invasion.

(OR)

23. Explain in detail about the clinical significance of invasion.

24. Write short notes on:

 a. Chemotherapy (7)

 b. Radiation Therapy (8)

(OR)

25. What are carcinogens? Explain the mechanism of radiation carcinogenesis.