

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 14BT2044
Sub. Name : CANCER BIOLOGY

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	How does the Retinoblastoma protein control the cell cycle? Illustrate it.	CO-1	5
	b.	What are the ultimate reasons of death occurring in cancer patients?	CO-1	5
	c.	What are the characteristics of a cancer? Describe the cancer grading system with an example.	CO-1	10
(OR)				
2.	a.	Give a detailed account on the theories of carcinogenesis with illustrations.	CO-1	15
	b.	Is there any natural and biological carcinogens? Justify it with examples.	CO-1	5
3.	a.	List out the different classes of cancers.	CO-1	5
	b.	Discuss about any three common cancer types with all relevant informations	CO-1	15
(OR)				
4.	a.	Which are the tumor suppressors associated with HPV oncogenesis? How?	CO-1	5
	b.	What are oncogenes? Discuss about their role in carcinogenesis with examples.	CO-1	15
5.	a.	What are Tumour Secific Antigens? Give examples.	CO-1	5
	b.	What does happen to cell adhesion molecules in cancer? Discuss it with 3 examples.	CO-1	15
(OR)				
6.	a.	What is meant by metastatic cascade? Explain it with neat illustartions.	CO-1	15
	b.	What are the pre-metastatic events taking place? How does it happen?	CO-1	5
7.	a.	What is the role of proteases in cancer? Discuss about any one in detail.	CO-1	5
	b.	Give a detailed account on the role of different growth factor families in cancer.	CO-1	15
(OR)				
8.	a.	What are the methods available for cancer detection? Detail them.	CO-3	15
	b.	Give a note on screening methods used for early detection of cancers.	CO-3	5
<u>Compulsory:</u>				
9.	a.	List out any 5 chemotherapeutic agents. Describe the methods of radiation therapy used for cancer with its disadvantages.	CO-2	15
	b.	What are the present challenges of gene therapy used for cancer treatment?	CO-3	5

ALL THE BEST