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



**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– 2017**

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| **Code :** | **14BT2044** | **Duration :** | **3hrs** |
| **Sub. Name :** | **CANCER BIOLOGY** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Compare the pathology of Carcinoma *In Situ* and invasive cancer. | CO1 | 6 |
| b. | List out the characteristics of cancer. | CO1 | 4 |
| c. | Discuss about the cancer grading systems with an example. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Elaborate the detailed account on the theories of carcinogenesis with illustrations. | CO3 | 15 |
| b. | Justify that the metabolic changes occur during cancer growth. | CO3 | 5 |
|  |  |  |  |
| 3. | a. | List out the different classes of cancers. | CO1 | 5 |
|  | b. | Explain the different types of carcinoma with adequate information. | CO1 | 15 |
| (OR) | | | | |
| 4. | a. | Classify the carcinogens with an example for each class. | CO3 | 8 |
|  | b. | Discuss in detail about the role of any one class of carcinogen in the event of carcinogenesis. | CO3 | 12 |
|  |  |  |  |  |
| 5. | a. | Compare and contrast Tumour Specific Antigens and Tumour Associated Antigens with examples. | CO2 | 5 |
|  | b. | Criticize the role of tumor suppressors in cancer development with two examples and comment on the viral oncogenes. | CO2 | 15 |
| (OR) | | | | |
| 6. | a. | What is meant by metastatic cascade? Explain it with neat illustration. | CO3 | 15 |
|  | b. | Justify that the metastasis mimic the lymphocyte homing in inflammation. | CO3 | 5 |
|  |  |  |  |  |
| 7. | a. | Evaluate the role of different proteases involved in cancer spread. | CO2 | 5 |
|  | b. | Elaborate a detailed account on the role of different growth factor families in cancer. | CO2 | 15 |
| (OR) | | | | |
| 8. | a. | What are the methods available for cancer detection? Explain them. | CO1 | 15 |
|  | b. | Criticize the early detection of cervical cancer by screening. | CO1 | 5 |
|  |  |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Discuss about the chemotherapy along with their mechanism of action, advantages and disadvantages in detail. | CO1 | 20 |

ALL THE BEST