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 – April/May – 2017**

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| **Code :** | **14BT2004** | **Duration :** | **3hrs** |
| **Sub. Name :** | **CELL BIOLOGY** | **Max. marks :** | **100** |

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

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Discuss in detail about the history of cytology and cell theory. | CO3 | 20 |
| (OR) | | | | |
| 2. | a. | Brief on the organization of mitochondria with a neat diagram. Add a note on its functions. | CO1 | 10 |
| b. | Draw a neat sketch of fluid mosaic model of plasma membrane and explain in brief. | CO1 | 10 |
| 3. |  | Define cell - cell communication and write a detailed note on cell junction and plasmodesmata. | CO4 | 20 |
| (OR) | | | | |
| 4. |  | Define extracellular matrix and discuss in detail about cytoskeleton protein – Microtubules. | CO3 | 20 |
| 5. |  | Define action potential. With a neat illustration, explain the process of nerve impulse transmission in neurons. | CO2 | 20 |
| (OR) | | | | |
| 6. |  | Define passive transport. Describe in detail about the transport of small and large molecules through plasma membrane. | CO2 | 20 |
| 7. |  | Discuss in detail about endocrine molecule and its mode of action in cell signaling. | CO3 | 20 |
| (OR) | | | | |
| 8. |  | Give an account on the membrane bound receptors for cell signaling. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Draw the structure of cAMP. Substantiate the role of cAMP as second messenger with suitable explanation. | CO4 | 20 |

ALL THE BEST