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 – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14BT2014** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BIO ORGANIC PRINCIPLES** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Discuss the cis- trans configuration with suitable examples. | CO1 | 6 |
| b. | Explain the ‘R’ and ‘S’ configuration with relavent examples. | CO1 | 14 |
| (OR) | | | | |
| 2. | a. | Describe the basic rules for optical activity of molecules. | CO2 | 6 |
| b. | How is polarimeter in used in measuring the optical activity of organic molecules? | CO2 | 14 |
| 3. |  | Discuss in detail about the bonds involved in stabilizing the 3’D structure of proteins. | CO3 | 20 |
| (OR) | | | | |
| 4. |  | Compare and comment the reaction mechanisms involved in ‘hydrolysis of tert-butyl bromide’ with ‘hydrolysis of bromomethane’. | CO2 | 20 |
| 5. | a. | Describe how RNase-A catalyse the hydrolysis of RNA molecules. | CO1 | 10 |
|  | b. | How are denaturation and renaturation processes associated with the structural stability of enzyme RNase-A? | CO2 | 10 |
| (OR) | | | | |
| 6. |  | Explain the catalytic mechanism of action of lysozyme enzyme on peptidoglycon layer. | CO2 | 20 |
| 7. | a. | Explain about the NAD-Dependent Oxidation and Reduction reactions that are catalysed by the enzymes. | CO2 | 14 |
|  | b. | How can the co-enzyme tetra hydro folate (THF) be helpful in transferring carbon units in between the molecules during an enzyme catalysed reactions? | CO2 | 6 |
| (OR) | | | | |
| 8. |  | Illustrate the coordination of series of reactions that are catalysed by pyruvate dehydrogenase complex (PDC) system. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Describe in detail about the types of Specificity of Enzyme action. | CO1 | 14 |
|  | b. | Explain how can the enzyme specificity be modified with reference to the enzyme lactose synthetase. | CO2 | 6 |

ALL THE BEST