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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

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

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **09BT209/12BI211/ 12BT212/ BC210** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **BIOORGANIC CHEMISTRY** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A(10X1=10 MARKS)** | | |
| 1. | Define - chiral carbon? | (1) |
| 2. | Name the devices used to produce plane polarized light. | (1) |
| 3. | Name the particles that are present in the nucleus of an atom. | (1) |
| 4. | Which kind of fission will bring free radicals? | (1) |
| 5. | Name bond formed between the lyscine and glutamic acid in the tertiary structure of protein. | (1) |
| 6. | Give 2 examples of enzymes that participate in covalent catalysis. | (1) |
| 7. | What is type of specificity existing in LDH enzyme mechanism? | (1) |
| 8. | What are the components that bring reversible denaturation in ribonuclease enzyme? | (1) |
| 9. | What is the metal required for creatine kinase activity? | (1) |
| 10. | What is the vitamin source for FAD coenzymes? | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11 | What are components of a polarimeter? | (3) |
| 12 | Define - heterolytic fission. | (3) |
| 13 | Name the types of organic reaction. | (3) |
| 14 | How does the peptide bond formation take place? | (3) |
| 15 | Write down the structure and activity of Tetrahydrofolate. | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. |  | Explain the ‘R’ and ‘S’ configuration in detail with examples. | (15) |
| (OR) | | | |
| 17. |  | Explain the principle and functions of polarimeter in detail. | (15) |
| 18. |  | Illustrate in detail about SN1 and SN2 reaction mechanisms. | (15) |
| (OR) | | | |
| 19. |  | Give a detailed account on the mechanisms of E1 and E2 reactions. | (15) |
| 20. |  | Discuss the chemical bonds in detail. | (15) |
| (OR) | | | |
| 21. | a. | Explain the mechanism of action of the enzyme ribonuclease. | (10) |
| b. | Add a note on its denaturation & renaturation behavior. | (5) |
| 22. |  | Explain the specificity of enzyme action in detail. | (15) |
| (OR) | | | |
| 23. |  | Discuss the mechanism of enzyme catalysed amide hydrolysis. | (15) |
| 24. |  | Illustrate the main chemical bonds involved in constructing structure of protein. | (15) |
| (OR) | | | |
| 25. |  | Explain the mechanism of action of pyruvate dehydrogenase. | (15) |

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