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



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14BT2014** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **BIOORGANIC 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. | Illustrate the E-and Z-configuration with suitable examples. | CO1 | 5 |
| b. | Document the rules and procedures for describing the molecules as ‘*rectus*’ and ‘*sinster*’. | CO1 | 15 |
| **(OR)** | | | | |
| 2. | a. | What is optical isomerism? | CO1 | 5 |
| b. | Illustrate the optical activity of lactic acid with reference to polarimeter. | CO1 | 15 |
|  |  |  |  |  |
| 3. |  | Map various chemical bonds involved in the stability of proteins at various levels of its structure. | CO2 | 20 |
| **(OR)** | | | | |
| 4. |  | Compare the unimolecular and bimolecular elimination reaction mechanisms with suitable molecules. | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | Write notes on acid-base catalysis. | CO2 | 6 |
| b. | Demonstrate the denaturation and renaturation behavior of ribonuclease enzyme. | CO2 | 6 |
| c. | Analyse the mechanism of action of ribonuclease enzyme on RNA molecules. | CO3 | 8 |
| **(OR)** | | | | |
| 6. |  | Construct the mechanism of action of lysozyme enzyme on its substrate. | CO3 | 20 |
|  |  |  |  |  |
| 7. | a. | Discuss the mechanism of amide bond hydrolysis. | CO2 | 10 |
| b. | Compile the events in the catalytic mechanism of chymotrypsin. | CO3 | 10 |
| **(OR)** | | | | |
| 8. | a. | Catagorize the types of Specificity of Enzyme action in detail. | CO3 | 14 |
| b. | Explain how could the substrate specificity be altered with reference to lactose synthetase enzyme. | CO3 | 6 |
|  | | **Compulsory**: |  |  |
| 9. |  | Demonstrate the mechanism of action of pyruvate dehydrogenase enzyme complex system. | CO3 | 20 |