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

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

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| **Code : :** | **14BI2005** | **Duration :** | **3hrs** |
| **Sub. Name :** | **STRUCTURAL BIOLOGY AND BIOPHYSICAL TECHNIQUES** | **Max. Marks :** | **100** |

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

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Explain secondary structure prediction algorithm with example. | CO1 | 20 |
| **(OR)** | | | | |
| 2. |  | Define motif? Explain tertiary structure of protein with example. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Describe hydrophobicity of amino acids and their application. | CO2 | 20 |
| **(OR)** | | | | |
| 4. |  | Explain structure and conformation of DNA and RNA with illustration. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Describe formations of polysaccharides and structural diversity due to the different types of linkages. | CO1 | 20 |
| **(OR)** | | | | |
| 6. |  | Sketch architecture of biological membrane with example. | CO2 | 20 |
|  |  |  |  |  |
| 7. |  | **Describe** X-ray crystallography diffraction method to determine the protein structure**.** | CO3 | 20 |
| **(OR)** | | | | |
| 8. |  | **Describe** NMR method to determine the protein structure**.** | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Write applications of biophysical techniques for the structure determination with example. | CO3 | 20 |