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



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

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| **Code :** | **17CH3020** | **Duration :** | **3hrs** |
| **Sub. Name :** | **SUPRAMOLECULAR CHEMISTRY AND GREEN CHEMISTRY** | **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. | Relate Co-operativity with Complementarity. | CO1 | 15 |
| b. | Analyze the Induced fit model with an example. | CO1 | 5 |
| **(OR)** | | | | |
| 2. | a. | Illustrate the “Lock and Key Principle” indicating its drawbacks. | CO1 | 15 |
| b. | Predict the type of Supramolecular interaction in the following:  C:\Users\USER\Desktop\Picture1.png | CO1 | 5 |
|  |  |  |  |  |
| 3. | a. | Explain in detail, the High dilution synthesis of a macrocycle with an example. | CO2 | 15 |
| b. | Outline the criteria for the construction of suitable receptors for Anions. | CO2 | 5 |
| **(OR)** | | | | |
| 4. | a. | Examine the Hydrogen sponge and Proton sponge with examples. | CO3 | 15 |
| b. | Prepare a brief report on Crown ethers. | CO3 | 5 |
|  |  |  |  |  |
| 5. | a. | Discuss the various methodologies involved in the synthesis of rotaxanes. | CO3 | 15 |
| b. | Differentiate between Borromeates and Knots. | CO3 | 5 |
| **(OR)** | | | | |
| 6. | a. | Exemplify Racks, Ladders and Grids with pictorial representations. | CO3 | 15 |
| b. | Predict the general name for the following structures.  C:\Users\USER\Desktop\Picture3.png | CO6 | 5 |
|  |  |  |  |  |
| 7. | a. | Generalize the structure, catalysis property and applications of Zeolites. | CO6 | 15 |
| b. | Summarize the Pi interactions. | CO6 | 5 |
| **(OR)** | | | | |
| 8. | a. | Describe the structures and guest properties of Clathrate Hydrates. | CO5 | 15 |
| b. | Discriminate Urea Clathrates from Thiourea Clathrates. | CO5 | 5 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Demonstrate the twelve principles of Green Chemistry. | CO4 | 15 |
| b. | Pen down some of the applications of Green Chemistry. | CO4 | 5 |