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

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**End Semester Examination – Nov/Dec – 2018**

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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. | Illustrate the Lock and key principle with a neat sketch? | CO1 | 14 |
| b. | List out the different types of Supramolecular interactions? | CO1 | 6 |
| (OR) | | | | |
| 2. | a. | Describe “Co-operativity” with pictorial representations. | CO1 | 14 |
| b. | Discuss the Complementarity in Supramolecular Chemistry? | CO2 | 6 |
|  |  |  |  |  |
| 3. | a. | Explain in detail, the High dilution synthesis of a macrocycle with an example? | CO2 | 14 |
| b. | Identify the following compounds by their exact name C:\Users\USER\Desktop\Presentation1\Slide1.JPG | CO2 | 6 |
| (OR) | | | | |
| 4. | a. | Define a crown ether? Describe the host-guest properties of Crown ethers? | CO3 | 14 |
| b. | Demonstrate Hydrogen sponge and Proton sponge with examples? | CO3 | 6 |
|  |  |  |  |  |
| 5. | a. | Categorize the different types of template synthesis of rotaxanes? | CO3 | 14 |
| b. | Prepare a brief report on Borromeates? | CO3 | 6 |
| (OR) | | | | |
| 6. | a. | Illustrate Racks, Ladders and Grids with pictorial representations? | CO3 | 14 |
| b. | Predict the general name for the following structures  C:\Users\USER\Desktop\QP - 17CH3020 - end sem.jpg | CO6 | 6 |
|  |  |  |  |  |
| 7. | a. | Explain the structure, composition, catalysis property and applications of Zeolites? | CO6 | 14 |
| b. | Write short notes on metal organic frameworks and its applications? | CO6 | 6 |
| (OR) | | | | |
| 8. | a. | Describe the structures and guest properties of Clathrate Hydrates? | CO5 | 14 |
| b. | Discriminate Urea Clathrates from ThioureaClathrates? | CO5 | 6 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the twelve principles of Green Chemistry? | CO4 | 14 |
| b. | Supercritical carbon dioxide is an attractive alternative in place of traditional organic solvents. Justify! | CO4 | 6 |