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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 :** | **12CH207** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **ORGANIC REACTIONS AND MECHANISMS** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | | **Marks** |
| **PART-A(10X1=10 MARKS)** | | | |
| 1. | Write an example for nucleophile. | | 1 |
| 2. | Write an example for non-classical carbocation. | | 1 |
| 3. | The structure of Arenium ion is \_\_\_\_\_\_\_\_\_\_. | | 1 |
| 4. | Write an example for nitrosation reaction. | | 1 |
| 5. | State Bredt’s rule. | | 1 |
| 6. | Write an example for hydroxylation reaction. | | 1 |
| 7. | The Grignard Reagent is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | 1 |
| 8. | What are Ylides? | | 1 |
| 9. | The reagent used in Steven’s rearrangement is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | 1 |
| 10. | In Hoffmann rearrangement a \_\_\_\_\_\_\_\_\_\_\_ is converted to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | 1 |
| **PART B(5 X 3= 15 MARKS)** | | | |
| 11. | What are ambident nucleophiles? Write an example. | | 3 |
| 12. | Explain the Stork-enamine reaction. | | 3 |
| 13. | Write the Mannich reaction. | | 3 |
| 14. | Explain the Gattermann reaction. | | 3 |
| 15. | Write a note on Fries rearrangement. | | 3 |
| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. | a. | Discuss the Benzyne Mechanism with an example. | 10 |
| b. | Write a note on neighbouring group participation. | 5 |
| (OR) | | | |
| 17. | a. | Discuss the mechanism of (i) Chichibabin Reaction | 8 |
| b. | (ii) Bucherer Reaction | 7 |
| 18. | a. | Write a detailed account on orientation and reactivity in mono-substituted aromatic rings. | 12 |
| b. | Write the Hammet Equation and explain the terms involved. | 3 |
| (OR) | | | |
| 19. | a. | Explain the SE1 mechanism with example. | 8 |
| b. | With example, explain the mechanism of Aliphatic diazonium coupling reaction. | 7 |
| 20. | a. | Explain the following reactions (i) Michael Addition | 8 |
| b. | (ii) Hydroboration | 7 |
| (OR) | | | |
| 21. | a. | Write a detailed account on Hofmann and Saytzeff rules. | 10 |
| b. | Discuss the mechanism of Chugaev reaction. | 5 |
| 22. | a. | Discuss the mechanism of (i) Aldol condensation | 8 |
| b. | (ii) Diekman condensation | 7 |
| (OR) | | | |
| 23. | a. | Explain the mechanism of (i) Clemmensen reduction | 8 |
| b. | (ii) Meerwein-Pondorf-Verley reductions | 7 |
| 24. | a. | Describe the mechanism of (i) Baeyer-Villiger Rearrangement | 8 |
| b. | (ii) Benzidine rearrangement | 7 |
| (OR) | | | |
| 25. | a. | Explain (i) Benzil-benzilic acid rearrangenment | 8 |
| b. | (ii) Lossen rearrangement | 7 |

ALL THE BEST