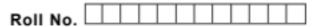


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Total No. of Pages : 02

Total No. of Questions : 19

M.Sc.(Chemistry) (Campus) (2015 to 2017) (Sem.-2) REACTIVE INTERMEDIATES-II Subject Code : CHL-412 M.Code : 51149

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains SIX questions carrying FIVE marks each and students have to attempt ALL questions.
- SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

- 1. Write chemical equation for Steven rearrangement.
- What do you mean by 'Michael addition'?
- 3. Write the structure and application of 9-BBN.
- 4. What is hydrogenolysis?
- 5. What is Cope elimination?
- 6. What is Stobbe reaction?
- 7. Write mechanism of ElcB.
- 8. Write chemical equation for Mannich reaction.
- 9. How DMSO in combination with DCC can be used for oxidation reaction?
- 10. Discuss reduction reaction of ester and nitrile.



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SECTION-B

- 11. Write a brief note on Wagner-Meerwein and Demjanov rearrangement.
- 12. Discuss oxidation reaction of methylene and aryl methenes by citing suitable examples.
- Discuss stereo chemical aspect as observed in Horner-Wittig reaction by taking suitable example.
- 14. Explain mechanism of ozonolysis by taking suitable examples.
- 15. Write a short note on :
 - a) Clemensen Reduction
 - b) Wolf-Kishner reduction
- Describe mechanism of addition of organozinc and organolithium reagents to carbonyl compounds with suitable examples.

SECTION-C

- Write a short note on following with special emphasis on stereo chemical aspect wherever applicable :
 - a) Sharpless asymmetric epoxidation
 - b) Hydroboration
- 18. Explain the differences between El and E2 mechanism by taking suitable examples. How we can predict whether substitution or elimination will be the principal reaction observed with a particular combination of reactants?
- 19. Write mechanism of following rearrangements :
 - a) Von-Richter rearrangement
 - b) Arndt-Eistert synthesis

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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