

PART A

(10 x 2=20)

Answer any **TEN** questions

1. Write the HVZ reaction?
2. What are the conditions responsible for Aldol condensation reaction?
3. What is Wurtz Reaction?
4. What is the need for coupling reactions in organic chemistry?
5. What is Sonogashira coupling reaction?
6. What is the action of LiAlH_4 and NaBH_4 in aldehydes and ketones?
7. What is hydroboration reaction?
8. Mention the reagents used in Wolf-Kishner reduction.
9. What is the action of Osmium tetroxide with lead tetra acetate?
10. What is Sharpless epoxidation?
11. What is DDQ?
12. Give one method to protect the- NH_2 group?

PART B

(2 x 5=10)

Answer any **TWO** questions

13. Discuss the Arndt-Eistert synthesis reaction?
14. Write the following reactions and its mechanism
a) Hunsdiecker reaction, b) Mannich reaction,
15. Explaining the following Coupling reactions: a) Negishi b) Hiyama
16. Describe the stereochemistry of ketone reduction?
17. Explain the Hydroboration of conjugated system?
18. Discuss the Arene sulfonyl hydrazine reduction reaction?
19. Describe the Oxidation of allylic carbon-hydrogen bonds?
20. Discuss the reaction and reagents used in Bakers yeast.

PART C

(2x10=20)

Answer any **TWO** questions

21. Discuss the following name reactions
a) Perkin reaction, b) Thorpe reaction
22. Explain the following coupling reactions a) Negishi reaction, b) Kumada reaction
23. Explain the following reactions a) Tributyltin hydride b) Wolf-Kishner reduction
24. Explain with example of the Oxidation reaction with peracids in carbon-carbon double bonds?
25. Discuss the mechanism and the reaction for the Protecting groups:
a) carbonyl and c) amines.