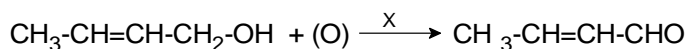
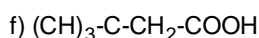
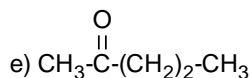
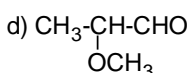
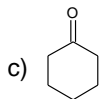
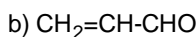


[MCQ – 2, 2 M – 1, LA(5M) – 2]**1 Mark questions:**

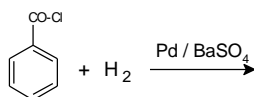
1. What happens when isopropyl alcohol is passed over preheated catalyst?
2. Identify 'X' in the following.



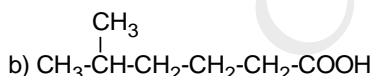
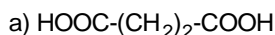
3. What is pyridinium chromyl chromate?
4. What is the IUPAC name of the following?



5. Complete the following reaction.



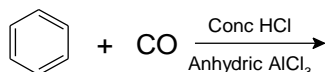
6. What is the gas liberated when propanone is treated with Zn-Hg and conc. HCl?
7. Write the structure of the product formed when propanone is treated with hydrazine.
8. Write the IUPAC name of the following.



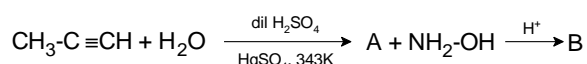
9. Write the structure of phthalic acid.
10. Write the structure of aldehyde present in cinnamom.
11. What types of ketones undergo Iodoform test?
12. Name the reagent to distinguish Acetophenone and benzophenone.
13. Name an industrial product manufactured from methanal.
14. What types of aldehydes and ketones undergo aldol condensation?
15. What type of aldehydes undergoes Cannizaro's reaction?
16. Which alkene on reductive ozonolysis gives acetone as the only product?
17. What makes acetic acid a stronger acid than phenol?
18. Name the reagent used to convert carboxylic acids directly to corresponding alcohols.
19. In which class of compounds the hydrogen bonds results in formation of a dimer?
20. Why formic acid does not undergo HVZ reaction but acetic acid does?
21. Benzophenone does not react with sodium bisulphite. Give reasons.

2 MARKES questions:

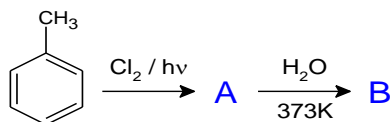
1. Explain Stephens's reaction with an example.
2. Explain Etard reaction with an example.
3. Complete the following reaction and name the reaction.



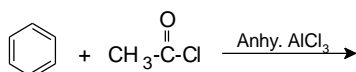
- The compound 'X' with molecular formula $\text{C}_5\text{H}_{10}\text{O}$ gives orange red precipitate with phenyl hydrazone, gives a negative test for Tollen's reagent and Iodoform test. Identify the compound 'X' and write its IUPAC name.
- Give one test to distinguish between the following pairs a) Acetone and Acetophenone b) Acetaldehyde and benzaldehyde.
- Acetaldehyde is soluble in water where as benzaldehyde is not. Give reason.
- Give the reaction for ozonolysis of 2-pentene.
- Complete the following reaction.



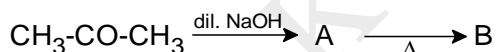
- Identify 'A' and 'B' in the following.



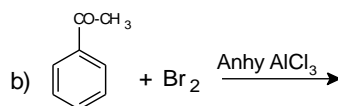
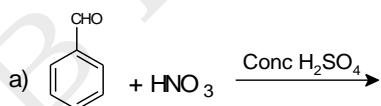
- Complete the following reaction and name the reaction.



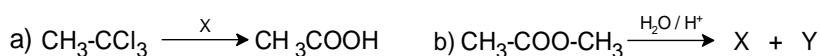
- How ketones are manufactured from Grignard reagents. Give an example.
- Write the equation for the reaction of propanone with ethylene glycol.
- What is the role of dry HCl in the formation of acetals and ketals from carbonyl compounds?
- Explain the acidic nature of α -hydrogen of aldehydes and ketones.
- How does ethanal react with dil. NaOH? Explain with an example.
- Complete the following reaction.



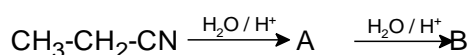
- How does benzaldehyde react with Acetophenone in presence of dil. NaOH?
- How does methanal react with strong dil. Alkali? Write the reaction.
- Complete the following:



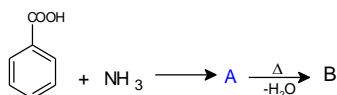
- Identify 'X' and 'Y' in the following.



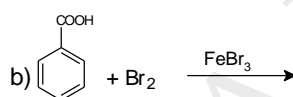
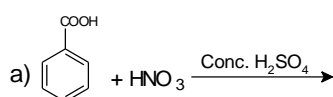
- Explain the preparation of carboxylic acids starting from Grignard reagents with an example.
- Complete the following



23. Ethanoic acid is more acidic than formic acid .Explain?
24. Arrange the following carboxylic acids in increasing order of acidic strength.
 $\text{CH}_3\text{-CH}_2\text{-CH(Br)-COOH}$, $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-COOH}$, $(\text{CH}_3)_2\text{-CH-COOH}$, $\text{CH}_3\text{-CH(Br)-CH}_2\text{-COOH}$
25. What is esterification? Explain with an example.
26. Give the equation for reaction of acetic acid with P_2O_5 .
27. How does propanoic acid react with PCl_5 ? Give the reaction.
28. Explain the reaction of carboxylic acids with ammonia with an example.
29. Complete the following and identify 'A' and 'B' in the following reaction.



30. How are Carboxylic acids reduced to primary alcohols? Give an example.
31. What is Decarboxylation? Give an example.
32. What is Hell-Volhard-Zelinisky reaction? Give an example.
33. Complete the following reaction.



3 Mark questions:

1. Explain Rosenmund reduction with an example. **OR** What happens when benzoyl chloride is reduced using hydrogen gas in presence of palladium catalyst supported over BaSO_4 /partially poisoned by sulphur / quinoline.
2. How does ethanal or acetaldehyde reacts with sodium bi sulphite?
3. Explain the formation of acetals and hemiacetals from acetaldehyde.
4. What is Tollen's reagent? Give the reaction of acetaldehyde with Tollen's reagent.
5. What is Fehling's reagent? How does acetaldehyde react with Fehling's reagent?
6. Among 2-pentanone and 3-pentanone which reacts with iodine and NaOH solution and why? Write the reaction and name the reaction.
7. Write the general mechanism for Nucleophilic addition of carbonyl compounds.
8. Write the mechanism for addition of HCN to ethanal.
9. How does benzaldehyde react with acetaldehyde in presence of dil. NaOH? Name the reaction.
10. What is cross aldol condensation? Write the cross aldol condensation reaction between ethanal and propanal.
11. Among phenols and carboxylic acids which is more stronger and why?
12. Explain phthalimide synthesis. **OR** Convert phthalic acid to phthalimide.
13. Give the reaction of acetaldehyde with a) Phenyl hydrazine b) hydroxyl amine c) semicarbazide