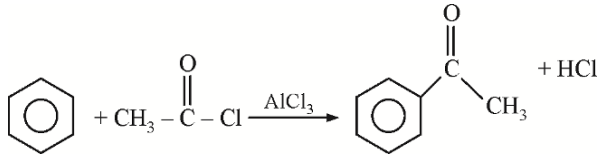
Date Planned : __ / __ / __	Daily Tutorial Sheet-1	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Advanced (Archive)	Exact Duration :_____

1. Outline the reaction sequence for the conversion of methanal to ethanol (the number of steps should not be more than three) **(1981)**

2. Write the structural formula of the main organic product formed when methanal reacts with ammonia. **(1981)**

3. Outline the accepted mechanism of the following reaction. Show the various steps including the charged intermediates. **(1981)**



4. A compound that gives a positive iodoform test is : **(1982)**

(A) 1-pentanol **(B)** 3-pentanone **(C)** 2-pentanone **(D)** pentanal

5. Benzaldehyde undergoes aldol condensation in an alkaline medium. Comment. **(1982)**

6. The Cannizzaro's reaction is not given by : **(1983)**

(A) trimethyl acetaldehyde **(B)** acetaldehyde

(C) benzaldehyde **(D)** formaldehyde

7. When acetaldehyde is treated with Fehling's solution, it gives a precipitate of : **(1983)**

(A) Cu **(B)** CuO **(C)** Cu_2O **(D)** $Cu + Cu_2O + CuO$

8. Which of the following compounds will react with ethanolic KCN ? **(1984)**

(A) Ethyl chloride **(B)** Acetyl chloride **(C)** Chlorobenzene **(D)** Benzaldehyde

9. Which of the following compounds will give a yellow precipitate with iodine and alkali ? **(1984)**

(A) 2-hydroxy propane **(B)** Acetophenone **(C)** Methyl acetate **(D)** Acetamide

10. Base catalysed aldol condensation occurs with : **(1984)**

(A) propionaldehyde **(B)** benzaldehyde

(C) 2-methyl propionaldehyde **(D)** 2, 2-dimethyl propionaldehyde

11. Show with balanced equation, what happens, when the following are mixed : **(1984)**
"Chloral is heated with aqueous hydroxide"

12. Write down the reactions involved in the preparation of the following using the reagents indicated against in parenthesis : **(1984)**

"Acetoxime from acetaldehyde." [$K_2Cr_2O_7$ / H^+, $Ca(OH)_2$ and NH_2OH, HCl]

13. Write down the main product of the following reactions. **(1985)**

(i) Benzene $\xrightarrow{CH_3CH_2COCl/AlCl_3}$ **(ii)** Propanal $\xrightarrow[heat]{NaOH}$

14. Write down product of the following reaction Benzyl carbaldehyde $\xrightarrow[heat]{NaOH}$ **(1985)**

15. Arrange the following in order of their increasing reactivity towards HCN : **(1985)**
CH_3CHO, CH_3COCH_3, HCHO, $C_2H_5COCH_3$