

# KCP SIDDHARTHA ADARSH RESIDENTIAL PUBLIC SCHOOL

Kanuru, Vijayawada – 520 007

## UNIT TEST - 2

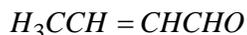
Class : XII  
Sub : CHEMISTRY

Marks : 30  
Time : 1 ½ Hr

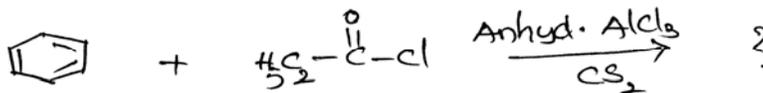
### General Instructions:

- Answer all the questions.
- Questions 1 to 5 are very short answer type carrying 1 mark each.
- Questions 6 to 8 are short answer type carrying 2 marks each.
- Questions 9 to 11 are short answer type carrying 3 marks each.
- Questions 12 to 13 are long answer type carrying 5 marks each.

- Write the IUPAC name of the following compound.



- Write Hofmann's bromamide reaction.
- Write the cannizaro reaction.
- Write the structure of product of the following reaction.



- Write Carbylamine reaction.
- Account for the following:  
 $pK_b$  of Aniline is more than that of methylamine.
- Describe the Aldol condensation reaction.
- Although phenoxide ion has more number of resonating structures than carboxylate ion, Carboxylic acid is a stronger acid than phenol. Why?
- Predict the products formed when cyclohexane carbaldehyde reacts with following reagents.
  - $PhMgBr$  and then  $H_3O^+$
  - Tollen's reagent
  - Zinc amalgam and dilute Hydrochloric acid.
- Arrange the following compounds in increasing order of their property as indicated:
  - Acetaldehyde, Acetone, Di-tert-butyl ketone, Methyl tert-butyl ketone  
(reactivity towards HCN)
  - $CH_3CH_2CH(Br)COOH$ ,  $H_3CCH(Br)CH_2COOH$ ,  $(H_3C)_2CHCOOH$ ,  
 $CH_3CH_2CH_2COOH$  (acid strength)

(c) Benzoic acid, 4-Nitrobenzoic acid, 3, 4-dinitrobenzoic acid, 4-Methoxybenzoic acid (acid strength)

11. Describe a method for the identification of primary, secondary and tertiary amines. Also write chemical equations of the reactions involved.

12. (a) What is diazotization? 1M

(b) Account for the following: 2M

Although amino group is o- and p- directing in aromatic electrophilic substitution reactions, aniline on nitration gives a substantial amount of m-Nitroaniline.

(c) Accomplish the following conversions: 2M

(i) Ethanoic acid  $\rightarrow$  Methanamine

(ii) Benzyl Chloride  $\rightarrow$  2-phenylethanamine.

13. Complete the following reactions: 5M

