

Seat
No.

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कड - 045

CHEMISTRY PAPER - II : CH - 122
Organic & Inorganic Chemistry
(New) (12136)

P. Pages : 2

Time : Two Hours

Max. Marks : 40

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Figures to the right indicate full marks.
6. Use of logarithmic table and non - programmable calculator is allowed

1. Attempt **any eight** of the following.

8

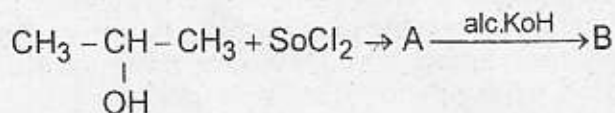
- i) Haloalkanes are derivatives of alkanes
 - a) Halogen.
 - b) Hydroxy.
 - c) Carboxyl.
 - d) Chloro.
- ii) The carbon atom of the carbonyl group is
 - a) sp hybridized.
 - b) sp^2 hybridized.
 - c) sp^3 hybridized.
 - d) dsp^2 hybridized.
- iii) Ethers are the alkoxy derivatives of
 - a) Alkanes.
 - b) Alkenes.
 - c) Alcohols.
 - d) Aldehydes.
- iv) Acetic acid on treatment with NaOH gives
 - a) Sodium acetate.
 - b) Ethyl alcohol.
 - c) Sodium acetate and water.
 - d) None.
- v) n - propyl bromide on treatment with aq. KOH produce.....
 - a) n - propyl alcohol.
 - b) Propene.
 - c) propyne.
 - d) Propane.
- vi) Nitration of benzene is
 - a) Nucleophilic Substitution.
 - b) Nucleophilic addition.
 - c) Electrophilic Substitution.
 - d) Electrophilic addition.
- vii) Which one of the following is oxidizing agent.
 - a) HNO_2
 - b) $K_2Cr_2O_7$.
 - c) $Na_2S_2O_3$.
 - d) $H_2C_2O_4$.
- viii) Equivalent weight of H_2SO_4 is 49, Its formula Weight is
 - a) 196
 - b) 9.8
 - c) 98
 - d) 49
- ix) Oxidising agent is the species.....
 - a) Which reduces some other species.
 - b) Which acts as electron donor.
 - c) Which losses one or more electron.
 - d) Which gain one or more electron.

- x) End point is a state in titration at which.....
- Indicator shows colour change.
 - There is physical change in indicator.
 - There is completion of titration.
 - All of these.

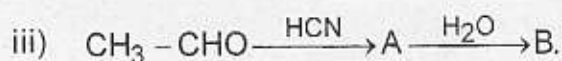
2. Answer **any four** of the following.

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- i) Identify product A and B in the following reaction.



- ii) What are ethers ? Give one example of symmetrical and unsymmetrical ether .



- iv) Write balance equation for - Benzoic acid is refluxed with thionyl chloride.

- v) Give requirements of primary standard substances.

- vi) Define the term molecular weight. Give example.

3. Answer **any two** of the following.

8

- Write note on Aldol condensation.
- What is nitration ? Discuss nitration of benzene.
- What are acid chlorides ? How benzoyl chloride is prepared from benzoic acid.

4. Answer **any two** of the following.

8

- What are alcohols ? Give classification of alcohols on the basis of number of - OH groups.
- Give requirements of primary standard substances.
- Explain calibration of pipette.

5. a) Answer **any one**.

6

- What is SN^1 reaction ? Explain its mechanism with energy profile diagram.
- Discuss the terms molarity and normality units of concentration.

b) Draw the structures of following compounds.

2

- Naphthalene.
- Thiophene.
