

Model Question Paper
Hydroxy Derivatives - Part I

12th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

III. Question number 15 is compulsory.

Time : 01:30:00 Hrs

Total Marks : 65

5 x 1 = 5

Part-A

- 1) Which has the highest boiling point?
(a) CH_3CH_3 (b) CH_3OH (c) C_2H_5OH (d) C_3H_8
- 2) Which is soluble in H_2O ?
(a) Phenol (b) Alkanes (c) Alcohols (d) Alkenes
- 3) Order of reactivity of alcohol towards sodium metal is
(a) primary < secondary > tertiary (b) primary > secondary > tertiary (c) primary < secondary < tertiary (d) primary > secondary < tertiary
- 4) The boiling point of ethyl alcohol should be less than that of
(a) Propane (b) formic acid (c) dimethyl ether (d) None of the above
- 5) Ethyl alcohol cannot be used as a solvent for CH_3MgI because
(a) CH_3MgI reacts with alcohol giving methane (b) The reaction between them is explosive in nature (c) CH_3MgI is converted to C_2H_5MgI
(d) Alcohol is immiscible with CH_3MgI

Part-B

5 x 3 = 15

- 6) What are alcohols? How do they differ from inorganic hydroxides?
- 7) Account for the following: (a) lower members of alcohols are soluble in water but higher members are not. Give reason.
- 8) Give reason. Methanol is miscible with water while iodo methane is not.
- 9) Give chemical test to distinguish between ethanol and methanol.
- 10) Compare the acid strength in 1° , 2° and 3° alcohol giving reason.

Part-C

5 x 5 = 25

- 11) Explain the various types of isomerism exhibited by alcohols
- 12) How would you distinguish between primary, secondary and tertiary alcohols by Victor Meyer's Test?
- 13) Discuss Cannizzaro's reaction with necessary equations
- 14) Distinguish between alcohols and phenols
- 15) a) Phenolate ion is more stabilized by resonance than phenol - how?

(OR)

- b) Starting from glycerol how would you obtain (i) nitro glycerine, (ii) acrolein and (iii) propylene

Part-D

2X10=20

- 16) a) Write a note on Kolbes, Riemeier Tiemann and Lederer - Manasse reactions
b) How is phenol converted to aniline, picric acid and quinone?
- 17) a) Complete the following by writing A, B and C, $HC \equiv CH \xrightarrow[H_2O]{H_2SO_4} A \xrightarrow{(0)BSOCl_2} C$
b) Explain the oxidation products of glycerol with various agents
