

Model Question Paper

Ethers - Part II

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) When diethyl ether reacts with chlorine in presence of sunlight it gives
(a) α -chloro diethyl ether (b) α, α' -dichloro diethyl ether (c) perchloro diethyl ether (d) both (a) and (b)
- 2) Anisole is used in
(a) refrigerant (b) anesthetic (c) perfumery (d) substitute for petrol
- 3) R-O-R' indicates
(a) ketone (b) ether (c) ester (d) aldehyde
- 4) Which one of the following is unsymmetrical ether?
(a) $CH_3 - O - C_2H_5$ (b) $CH_3 - OC_2H_5$ (c) $C_2H_5 - O - C_2H_5$ (d) $C_6H_5OC_2H_5$
- 5) The IUPAC name of $CH_3OC_2H_5$ is
(a) ethoxyl methane (b) methoxy ethane (c) ethyl methyl ether (d) methyl ethyl ether

Part-B

- 6) How is anisole prepared in large scale?
- 7) When anisole is treated with HI, iodobenzene is never formed Give reason.
- 8) How does anisole react with conc. H_2SO_4 and conc. HNO_3 mixture?
- 9) Give any two differences between anisole and diethyl ether.
- 10) Give an example to show the functional isomerism exhibited by ethers.

5 x 3 = 15

Part-c

- 11) How does diethyl ether react with PCl_5 , one equivalent of HI and excess of HI?
- 12) Give the names and structures of all the isomers with the molecular formula $C_4H_{10}O$.
- 13) Explain any two methods of preparing ethers from alcohol.
- 14) Write the structural formulae for α, α' -dichloro diethyl ether, phenetole, diethyl peroxide, anisole and diethyl oxonium hydrogen sulphate.
- 15) a) What happens when diethyl ether is treated with (i) Grignard reagent (ii) dilute and concentrated H_2SO_4 .

5 x 5 = 25

(OR)

- b) Write anyone method of preparation of anisole, two chemical properties and uses.

Part-D

2X10=20

- 16) a) Give any three methods of preparing diethyl ether.
b) Mention the methods of preparation of anisole.
- 17) a) Explain the formation of CH_3I and phenol when anisole is heated with HI.
b) Write a note on the type of isomerism exhibited by ethers.
