

MCQ of ETHERS

(1)

1. Anisole is formed when Phenol is treated with -
(a) $C_2H_5I/NaOH$ (b) $CH_3I/NaOH$ (c) $CH_3I/NaOH$ (d) Acetic anhydride
2. $C_6H_5OH + CH_2N_2 \xrightarrow{BF_3}$ Product, Product is
(a) Ethanol (b) Anisole (c) Picric acid (d) cyclohexanol
3. William son's synthesis of ether is an example of -
(a) Electrophilic substitution (b) nucleophilic substitution
(c) Free radical reaction (d) None.
4. Epoxides are highly reactive than acyclic ether because of -
(a) stability (b) angle strain (c) steric hindrance (d) Inductive effect
5. which of the following is distinguish test for ether -
(a) Lucas test (b) Zeisel test (c) Molish test (d) $FeCl_3$ test
6. $C_2H_5ONa + I C_2H_5 \rightarrow C_2H_5OC_2H_5 + NaI$ is -
(a) Wurtz synthesis (b) Williamson's synthesis (c) Kolbe reactⁿ (d) None
7. Ethers are basic, as they form salts with strong acids which are known as -
(a) Hydronium salts (b) oxonium salts (c) Hydrogen sulphate
(d) None
8. When anisole, $(C_6H_5OCH_3)$ is cleaved with HI, the product will be -
(a) Iodobenzene and methanol (b) Phenol and Methyl iodide
(c) Iodobenzene + methanol + Phenol (d) None
9. When ethyl methyl ether is treated with HI, the resulting iodide will be -
(a) Ethyl iodide (b) Methyl iodide (c) Both ethyl and methyl iodide (d) None

10. Ziesel method is used to estimate -
 (a) alcoholic group (b) alkoxy group (c) amino group (d) halo group ⁽²⁾
11. Alkoxymercuration - demercuration, consists in treating an alkene with mercuric trifluoroacetate in the presence of alcohol followed by reduction with -
 (a) LiAlH_4 (b) NaBH_4 (c) Pd-BaSO_4 (d) Ni
12. Diethyl ether may be prepared by -
 (a) Kolbe's reaction (b) Williamson's synthesis (c) Wurtz synthesis (d) Frankland synthesis
13. Ethanol and dimethyl ether is a -
 (a) Position isomerism (b) Functional isomerism (c) Chain isomerism (d) Metamerism
14. Diethyl ether can be decomposed by heating with -
 (a) NaOH (b) HI (c) KMnO_4 (d) None
15. The no. of structural isomers of molecular formula $\text{C}_4\text{H}_{10}\text{O}$ is -
 (a) 3 (b) 7 (c) 4 (d) 5.
16. The basis of formation of diethyl ether from alcohol is -
 (a) Dehydrogenation (b) Dehydration (c) Hydrogenation (d) Heterolytic fission
17. According to Lewis concepts of acid and base, ethers are -
 (a) Acidic (b) basic (c) Neutral (d) Amphoteric
18. Diethyl ether is not isomeric with -
 (a) n-propyl methyl ether (b) Butanone (c) 1-butanol (d) 2-methyl-2-propanol
19. The central oxygen atom in ether is -
 (a) sp -hybridised (b) sp^3 hybridised (c) sp^2 hybridised (d) $sp^3 d^2$ hybridised.
20. Which of the following is used as anaesthetic -
 (a) Tetrachloroethylene (b) Ether (c) Thiobarbiturates (d) All

Fill in the Blanks

1. Williamson ether synthesis is an example of ----- substitution.
2. Alkoxymercuration - demercuration, consists in treating an alkene with mercuric trifluoroacetate in the presence of alcohol followed by reduction with ----- to form an ether.
3. Ethers are basic, as they form ----- with strong acids.
4. Ziesel's method is used to estimate ----- group in organic compounds.
5. When ethyl methyl ether is treated with HI, the resulting iodide will be -----.
6. When anisole is cleaved with HI, the product formed will be ----- and -----.
7. Vaniline is formed by the ----- of isoeugenol.

1- Nucleophilic

2- NaBH_4

3- oxonium salts

4- alkoxy

5- Methyl iodide

6- Phenol and methyl iodide

7- oxidation.