

## PRACTICE TEST

Level 3

CLASS: XII

### Unit 11: ALCOHOLS, PHENOLS AND ETHERS

Full marks: 20

Time: 40 Min

Q.No	Questions	M														
1	Name the product obtained on monochlorination of toluene in sunlight followed by hydrolysis with aq. NaOH.	1														
2	How many alcohols with molecular formula C <sub>4</sub> H <sub>10</sub> O are chiral in nature?	1														
3	Write IUPAC name of CH <sub>3</sub> -CHCl-CH <sub>2</sub> -CH <sub>2</sub> -CH(OH)-CH <sub>3</sub>	1														
4	What happens when benzene diazonium chloride is heated with water?	1														
5	Why is the reactivity of all the three classes of alcohols with conc. HCl and ZnCl <sub>2</sub> (Lucas reagent) different?	2														
6	Explain why is <i>ortho</i> nitrophenol more acidic than <i>ortho</i> methoxyphenol ?	2														
7	Explain how does the -OH group attached to a carbon of benzene ring activate it towards electrophilic substitution?	2														
8	Write the mechanism of acid dehydration of ethanol to yield ethene.	2														
9	Write the names of reagents and equations for the preparation of the following ethers by Williamson's synthesis:	2														
	(i) 1-Propoxypropane (ii) Ethoxybenzene															
	(iii) 2-Methoxy-2-methylpropane (iv) 1-Methoxyethane															
10	Match the items of column I with items of column II.	3														
	<table border="1"><thead><tr><th>column I</th><th>column II</th></tr></thead><tbody><tr><td>(i) Methanol</td><td>(a) Conversion of phenol to <i>o</i>-hydroxysalicylic acid</td></tr><tr><td>(ii) Kolbe's reaction</td><td>(b) Ethyl alcohol</td></tr><tr><td>(iii) Williamson's synthesis</td><td>(c) Conversion of phenol to salicylaldehyde</td></tr><tr><td>(iv) Conversion of 2° alcohol to ketone</td><td>(d) Wood spirit</td></tr><tr><td>(v) Reimer-Tiemann reaction</td><td>(e) Heated copper at 573K</td></tr><tr><td>(vi) Fermentation</td><td>(f) Reaction of alkyl halide with sodium alkoxide</td></tr></tbody></table>	column I	column II	(i) Methanol	(a) Conversion of phenol to <i>o</i> -hydroxysalicylic acid	(ii) Kolbe's reaction	(b) Ethyl alcohol	(iii) Williamson's synthesis	(c) Conversion of phenol to salicylaldehyde	(iv) Conversion of 2° alcohol to ketone	(d) Wood spirit	(v) Reimer-Tiemann reaction	(e) Heated copper at 573K	(vi) Fermentation	(f) Reaction of alkyl halide with sodium alkoxide	
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11	Explain the following with an example. (i) Kolbe's reaction. (ii) Reimer-Tiemann reaction. (iii) Williamson ether synthesis.	3														