

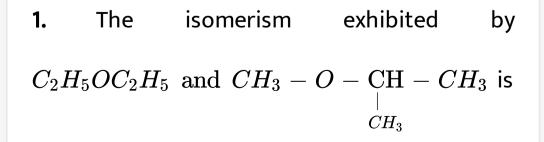
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# **CHEMISTRY**

# NCERT - NCERT CHEMISTRY(TELUGU)

# **ETHERS**

Self Evaluation A Choose The Correct Answer



#### A. Functional

B. metamerism

C. position

D. chain

#### **Answer:**

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**2.** Which of the following is a simple ether?

A. 
$$CH_3 - O - C_2H_5$$

B.  $C_2H_5 - O - CH_3$ 

#### $C. C_2 H_5 - O - C_2 H_5$

D.  $C_3H_7 - O - C_2H_5$ 

#### Answer:

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#### 3. Diethyl ether can be decomposed with

A. HI

B.  $KMnO_4$ 

C. NaOH

D.  $H_2O$ 

#### **Answer:**



#### 4. Oxygen atom in ether is

A. very active

B. Replacable

C. oxidising

D. Comparatively inert

#### Answer:

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# **5.** According to Lewis concept of acids and bases, ethers are

A. Neutral

B. Acidic

C. Basic

#### D. Amphoteric

#### Answer:

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**6.** Intermolecular hydrogen bonds are not present in

A.  $CH_3COOH$ 

 $\mathsf{B.}\, C_2 H_5 O C_2 H_5$ 

 $\mathsf{C.}\,CH_3CH_2OH$ 

#### D. $C_2H_5NH_2$

#### Answer:

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**7.** When ethyl lodide is heated with dry silver oxide the product formed is

A. Ethyl alcohol

B. diethylether

C. silver ethoxide

D. ethylmethyl ether

#### Answer:

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#### 8. Williamson synthesis is an example of

#### A. nucleophilic addition

- B. electrophilic addition
- C. electrophilic substitution
- D. Nucleophilic substitution reaction

#### Answer:



**9.** When ether is exposed to air for sometime an explosive substance produced is

A. peroxide

B. oxide

C. TNT

D. superoxide

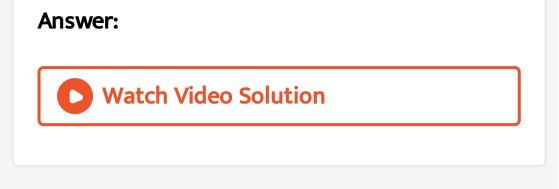
#### Answer:



**10.** Ether is formed when alkylhalide is treated with sodium alkoxide. This method is known as

A. Hoffmann reaction

- B. Williamson's synthesis
- C. Wurtz synthesis
- D. Kolbe's reaction





1. Pick up the incorrect statement

A. An example of unsymmetrical ether is

 $CH_3OC_2H_5$ 

B. Ethers exhibit functional isomerism with

alcohols

C. Halogenated ether on treating with

alcohols forms higher ether

D. Ether is lighter than water

Answer:

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2. Pick up the incorrect statement

A. Diethylether with chlorine in presence of

#### sunlight forms $(C_2Cl_5)_2O$ .

B. The formula of diethyl oxonium chloride

is  $(C_2 H_5)_2 - O^+ C l^-$ 

C. In anisole oxygen is strongly bonded to

benzene ring.

D. Ether is used as solvent for Grignard

reagent.

#### Answer:

3. Pick up the incorrect statement

# A. $CH_3OCH_3 \xrightarrow{\operatorname{dry} \operatorname{DI}} CH_3I + CH_3OH$

B. Ether is used as substitute for petrol

C. In Williamson synthesis, ether is formed

using alkoxide and alcohol

D. Ethers act as Lewis base due to the

presence of non-bonding electrons on

oxygen.



# Self Evaluation C Answer In One Or Two Sentences

#### 1. Write the IUPAC names of

### (a) $C_2H_5OCH_3$ (b) $C_6H_5OC_2H_5$

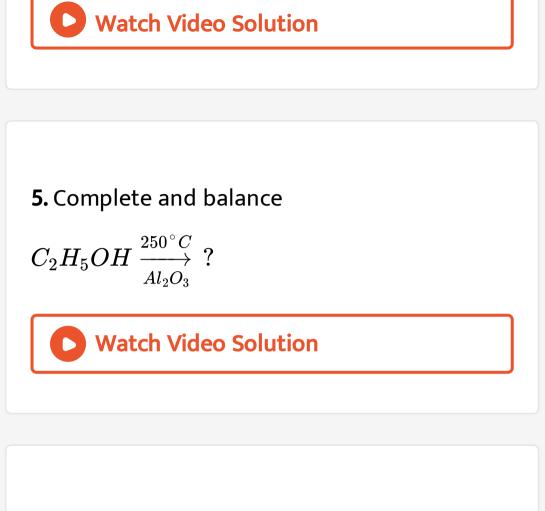
2. Ethers should not be heated to dryness.
Why ?
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3. Ethers are the best solvents of Grignard

reagents- Account for this statement.



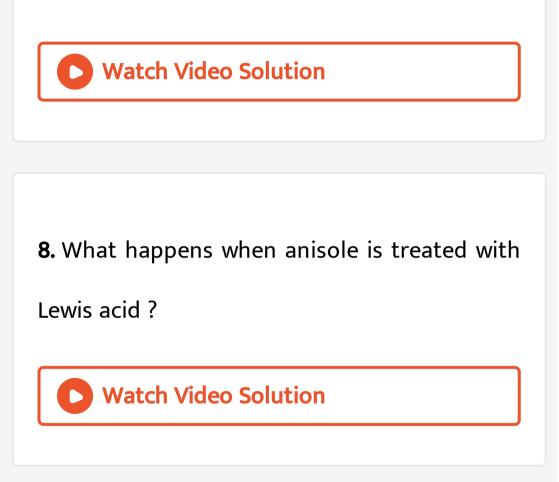
**4.** Write a note on williamson synthesis.



#### 6. Why are ethers not soluble in water ?



7. Mention the uses of diethyl ether.



**9.** What happens when anisole is nitrated ?

10. Write equation for the conversion of

phenol to anisole

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## Self Evaluation D Answer Not Exceeding Sixty Words

**1.** Write all possible isomers with the molecular formula  $C_4 H_{10} O$  and name them.



2. Give any three methods of preparing diethyl

ether.

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**3.** Mention the methods of preparation of anisole.

**4.** How does diethyl ether react with the following reagents ?

A.  $O_2$  / long contact

B. HI in excess

 $\mathsf{C}. PCl_5$ 

D. dilute  $H_2SO_4$ 

#### Answer:

5. Give any two chemical differences between

anisole and an aliphatic ether.



6. Explain the electrophilic substitution

reaction of Anisole.

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**7.** Explain the formation of  $CH_3I$  and phenol when anisole is heated with HI.

