



# CBSE NCERT Based Chapter wise Questions (2025-2026)

Class-XII

Subject: CHEMISTRY

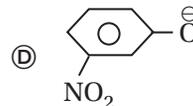
Chapter Name : Alcohol, Phenol & Ether (Chap : 7)

Total : 6 Marks (expected) [MCQ(1)-1 Mark, VSA-(1)-2 Marks, SA(1)-3 Marks]

Level - 1

MCQ Type :

1. Which of the following species can act as the strongest base ?



(Hints : CBSE : 2024)

2. Vishal took 4 test-tubes namely A, B, C and D containing  $\text{CH}_3\text{CH}=\text{CH}_2$ ,  $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2$ ,  $\text{CH}_3\text{CH}=\text{CH}-\text{CH}_3$  and  $(\text{CH}_3)_2\text{C}=\text{CH}_2$  respectively and tried to convert them into tert-butyl alcohol. He carried out acid catalysed hydration reaction on every alkene. Out of the four test-tubes, the one which will give desired result is :

(A) A

(B) B

(C) C

(D) D

(Hints : CBSE, 2024)

3. Nucleophilic addition of Grignard reagent to ketones followed by hydrolysis with dilute acids forms :

(A) Alkene

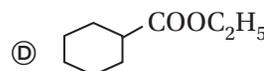
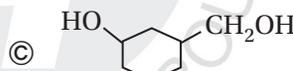
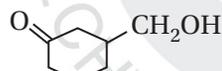
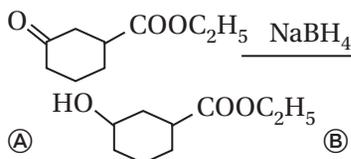
(B) primary alcohol

(C) tertiary alcohol

(D) secondary alcohol

(Hints : CBSE, 2024)

4. The product formed in the reaction :



(Hints : CBSE, 2023)

5. Which of the following alkenes on acid catalysed hydration gives a tertiary alcohol ?

(A) 2-butene

(B) 2-methyl propene

(C) propene

(D) 1-butene

(Hints : CBSE, 2023)

(II) Assertion and Reason Questions. (Q. 6 - 8) :

**Directions:** Read the following questions and choose any one of the following four responses.

- Assertion and Reason both are correct and Reason is the correct explanation of Assertion.
- Assertion and Reason both are correct and Reason is not the correct explanation of Assertion.
- Assertion is correct but Reason is wrong.
- Assertion is wrong but Reason is correct.

6. **Assertion (A) :** p-nitrophenol is less acidic than phenol

**Reason (R) :** Nitro group is electron withdrawing and helps in the stabilisation of p-nitro phenoxide ion

(A) a

(B) b

(C) c

(D) d

(Hints : CBSE, 2024)

7. **Assertion (A)** : p-methoxy phenol is a stronger acid than p-nitrophenol  
**Reason (R)** : Methoxy group shows +I effect whereas nitro group shows -I effect.

(A) a                                      (B) b                                      (C) c                                      (D) d

(Hints : CBSE, 2024)

8. **Assertion (A)** : bromination of phenol can be carried out even in the absence of Lewis acid.  
**Reason (R)** : -OH group of phenol has the high activation effect.

(A) a                                      (B) b                                      (C) c                                      (D) d

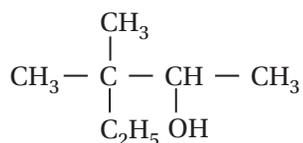
(Hints : CBSE, 2024)

(III) Very Short Answer (VSA) :

9. in the process of wine making, ripened grapes are crushed so that sugar and enzymes should come in contact with each other and fermentation should start. What will happen if anaerobic conditions are not maintained during this process ?

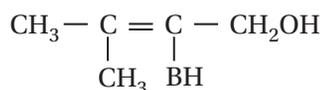
(Hints : CBSE, SQP 2018)

10. Write the I.U.P.A.C name of the following



(Hints : CBSE, 2018)

11. Write the I.U.P.A.C name of the following compound :



(Hints : All India 2017)

Short Answer Question (SA) :

12. Write chemical equations for the following reactions : (Do any three)

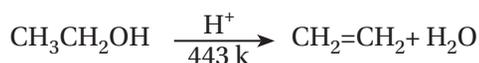
- (i) Hydroboration - oxidation
- (ii) Williamson synthesis
- (iii) Friedel-Crafts alkylation
- (iv) Reimer - Tiemann reaction.

13. Give the structure of the major product expected from the following reactions :

- (i) Reaction of ethanal with methyl-magnesium bromide followed by hydrolysis.
- (ii) Hydration of but-1-ene in the presence of dilute sulphuric acid
- (iii) Reaction of phenol with bromine water

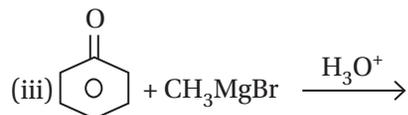
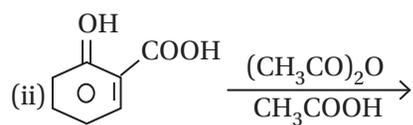
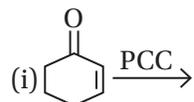
(Hints : CBSE 2024)

14. (i) Write the mechanism of the following reaction :



- (ii) Write the equation of the reaction for the preparation of phenol from cumene.

15. Write the product (s) of the following reactions :



(Hints : All India 2020)

## ANSWER

1. ©
2. Ⓓ
3. ©
4. Ⓐ

5. Ⓑ
6. ©
7. Ⓓ
8. Ⓐ

