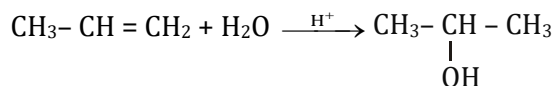


EXERCISE-I (Conceptual Questions)

Build Up Your Understanding

1. Select the incorrect option for the following reaction:



- (1) This is an example of NAR of alkene
- (2) In the first step, protonation of alkene takes place
- (3) In the second step, Nucleophilic attack of water takes place on carbocation
- (4) In the last step deprotonation takes place to form an alcohol

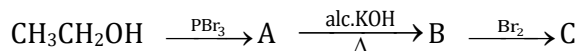
CAE006

2. For the reduction of aldehydes and ketones into alcohol the reagent which can be used is/are :

- (1) H_2 in presence of Ni, Pt or Pd
- (2) NaBH_4
- (3) LiAlH_4
- (4) All

CAE007

3. The compound A, B and C in the reaction sequence

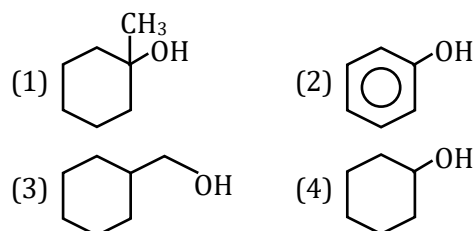


are given by the set

- (1) $\text{C}_2\text{H}_5\text{Br}$, $\text{CH}_3\text{CH}_2\text{OH}$, CH_3CHBr_2
- (2) $\text{C}_2\text{H}_5\text{Br}$, $\text{CH}\equiv\text{CH}$, $\text{CH}_2=\text{CHBr}$
- (3) $\text{C}_2\text{H}_5\text{Br}$, $\text{CH}_2=\text{CH}_2$, $\text{CH}_2\text{Br}-\text{CH}_2\text{Br}$
- (4) $\text{C}_2\text{H}_5\text{Br}$, $\text{CH}_3\text{CH}_2\text{OH}$, $\text{BrCH}_2-\text{CH}_2\text{Br}$

CAE001

4. Which is most reactive with H-X ?



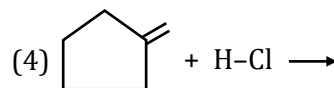
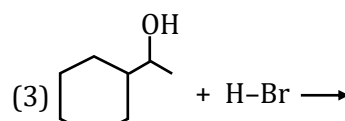
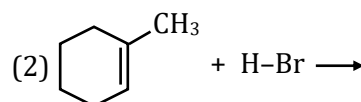
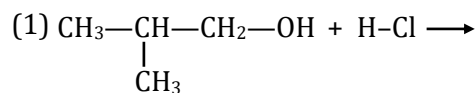
CAE084

5. Alkyl halides can be obtained by all methods excepts

- (1) $\text{CH}_3-\text{CH}_2-\text{OH} + \text{HCl} \xrightarrow{\text{ZnCl}_2}$
- (2) $\text{CH}_2=\text{CH}-\text{CH}_3 + \text{HBr} \longrightarrow$
- (3) $\text{C}_2\text{H}_5\text{OH} + \text{NaCl} \longrightarrow$
- (4) $\text{CH}_3-\text{CH}_2-\text{OH} + \text{NaBr} \xrightarrow{\text{H}_2\text{SO}_4}$

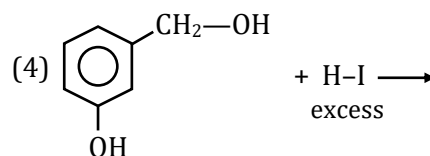
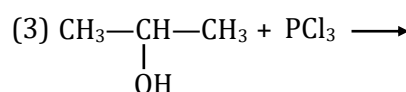
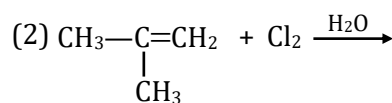
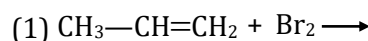
CAE124

6. In which reaction 3° Halide is not obtained as a major product ?



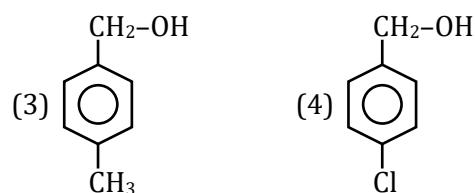
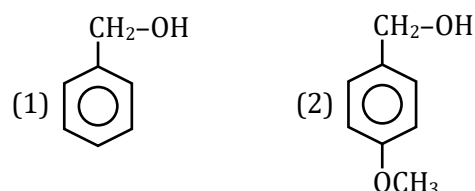
CAE125

7. Which reaction gives only dihalide



CAE126

8. Which is maximum reactive towards H-X ?



CAE127

9. p, s and t-alcohols can be distinguished by :-
 (1) Reimer-Tieman reaction
 (2) Tollen's reagent
 (3) Lucas test
 (4) Lassaigne's test

CAE004

10. Which of the following does not turn orange colour of chromic acid to green
 (1) 1° alcohol (2) 2° alcohol
 (3) 3° alcohol (4) Allyl alcohol

CAE003

11. Consider the following reaction :
 $\text{C}_2\text{H}_5\text{OH} + \text{H}_2\text{SO}_4 \rightarrow \text{Product}$
 Among the following, which one cannot be formed as a product under any conditions ?
 (1) $\text{C}_2\text{H}_5\text{OSO}_3\text{H}$
 (2) $\text{H}_2\text{C}=\text{CH}_2$
 (3) $\text{HC}\equiv\text{CH}$
 (4) $\text{CH}_3-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_3$

CAE005

12. Which of the following compounds shows intramolecular hydrogen bonding :-
 (1) p-Nitrophenol (2) Ethanol
 (3) o-Nitrophenol (4) Methanamine

CAE013

13. Phenol on treatment with methyl chloride in the presence of anhydrous AlCl_3 gives chiefly:-
 (1) o-cresol (2) m-cresol
 (3) Anisole (4) p-cresol

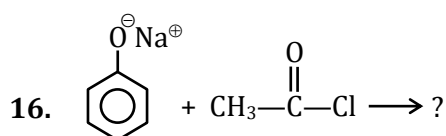
CAE017

14. Phenol on heating with NaNO_2 and a few drops of conc. H_2SO_4 mainly gives :-
 (1) p-nitrophenol
 (2) p-nitrosophenol
 (3) o-nitrophenol
 (4) m-nitrosophenol

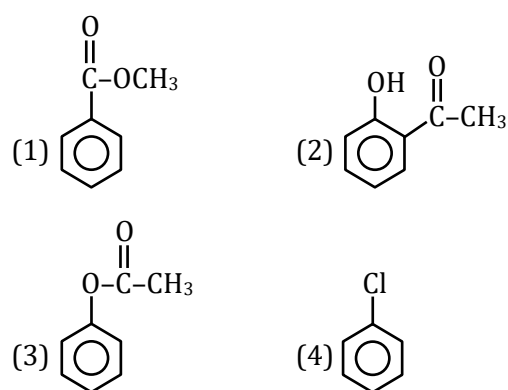
CAE018

15. Phenol and benzoic acid are distinguished by:-
 (1) Lucas reagent
 (2) Victor Meyer test
 (3) Caustic soda
 (4) Sodium bicarbonate

CAE019

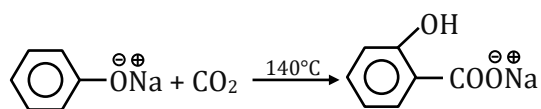


Sodium phenate



CAE014

17. The reaction



is called :-

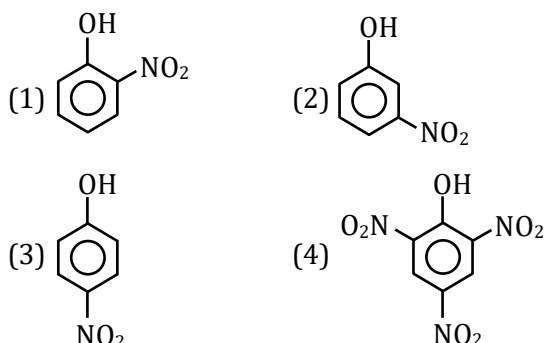
- (1) Schotten Bauman reaction
 (2) Kolbe Schmidt reaction
 (3) Reimer-Tiemann reaction
 (4) Lederer-Manasse reaction

CAE015

18. Phenol can be distinguished from ethanol by reactions with the following except :-
 (1) Iodine and alkali
 (2) Ferric chloride
 (3) Acetyl chloride
 (4) Bromine water

CAE016

19. Nitration of phenol with conc. H_2SO_4 followed by nitric acid gives :-



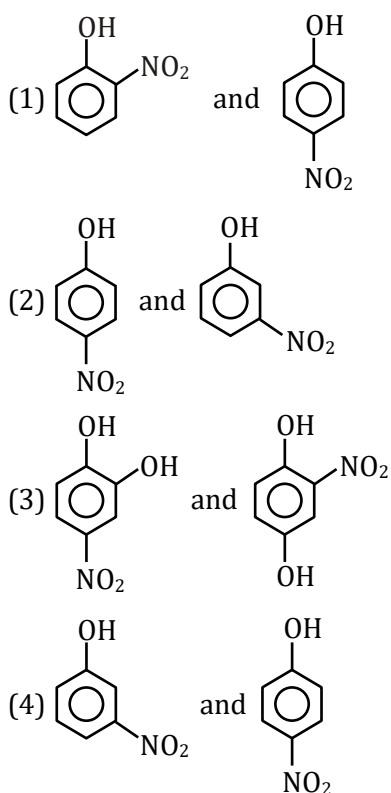
CAE011

20. Deoxygenation of phenol can be achieved by distillation with :-

- (1) Raney nickel
 (2) Lithium aluminium hydride
 (3) Sodium borohydride
 (4) Zinc dust

CAE012

21. Phenol on treatment with dil HNO_3 at low temp (298 K) gives two products P and Q. P is steam volatile but Q is not. P and Q are respectively.



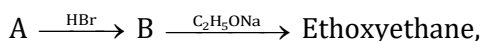
CAE020

22. The preparation of ethers from alcohols by using sulphuric acid is called :-

- (1) Williamson's ether Synthesis
 (2) Williamson's continuous etherification process
 (3) Ziesel's method
 (4) Zerewitinoff method

CAE021

23. In the reaction sequence



A and B are :-

- (1) C_2H_6 , $\text{C}_2\text{H}_5\text{Br}$
 (2) CH_4 , CH_3Br
 (3) $\text{CH}_2=\text{CH}_2$, $\text{C}_2\text{H}_5\text{Br}$
 (4) $\text{CH}\equiv\text{CH}$, $\text{CH}_2=\text{CHBr}$

CAE023

24. $\text{CH}_3\text{-CH}_2\text{-OH} + \text{Ph-OH} \xrightarrow[140^\circ\text{C}]{\text{H}^+}$ which is not obtained?

- (1) $\text{CH}_3\text{-CH}_2\text{-O-CH}_2\text{-CH}_3$
 (2) $\text{CH}_3\text{-CH}_2\text{-O-Ph}$
 (3) Both (1) and (2)
 (4) Ph-O-Ph

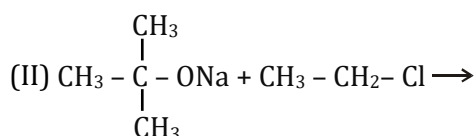
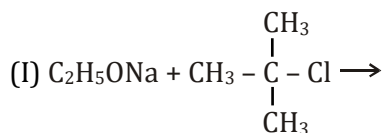
CAE024

25. Which of the following does not react with aq. NaOH :-

- (1) Phenol (2) Benzoic acid
 (3) CH_3COOH (4) $\text{CH}_3\text{-O-C}_6\text{H}_5$

CAE026

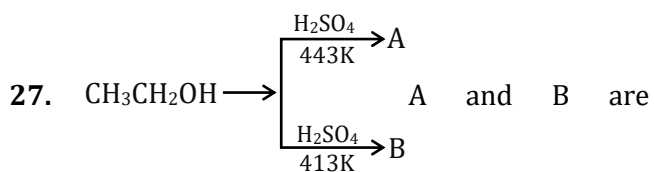
26. A student tried two reactions for preparing tert-butyl ethyl ether :



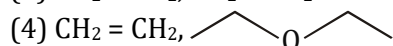
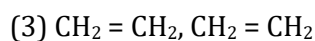
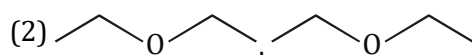
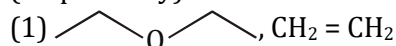
Which reaction will give better yield of tert-butyl ethyl ether ?

- (1) Only I (2) Only II
 (3) Both I & II (4) Neither I nor II

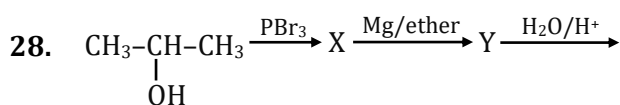
CAE027



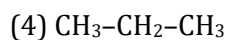
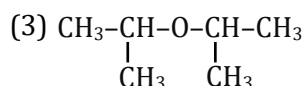
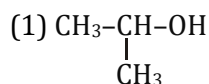
(respectively)



CAE009

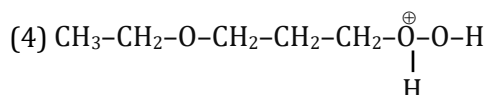
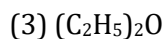
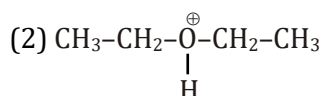
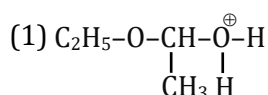


The final product is :-



CAE022

29. Oxonium ion of ether has the structure :-



CAE025

30. Which of the following is insoluble in water ?

(1) Ethanol

(2) Ethoxyethane

(3) Phenol

(4) Pentane

CAE010

EXERCISE-I (Conceptual Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	1	4	3	1	3	1	1	2	3	3	3	3	4	2	4
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	3	2	3	4	4	1	2	3	4	4	2	4	4	2	4

EXERCISE-II (Previous Year Questions)

AIPMT/NEET

AIPMT 2014

1. Among the following sets of reactants which one produces anisole?
- (1) CH_3CHO ; RMgX
 - (2) $\text{C}_6\text{H}_5\text{OH}$; NaOH ; CH_3I
 - (3) $\text{C}_6\text{H}_5\text{OH}$; neutral FeCl_3
 - (4) $\text{C}_6\text{H}_5 - \text{CH}_3$; CH_3COCl ; AlCl_3

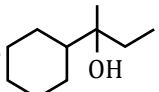
CAE037

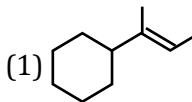
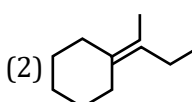
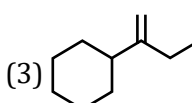
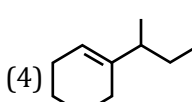
RE-AIPMT 2015

2. Reaction of phenol with chloroform in presence of dilute sodium hydroxide finally introduces which one of the following functional group ?
- (1) $-\text{CHCl}_2$
 - (2) $-\text{CHO}$
 - (3) $-\text{CH}_2\text{Cl}$
 - (4) $-\text{COOH}$

CAE038

3. Which of the following is not the product of

dehydration of  ?

- (1) 
- (2) 
- (3) 
- (4) 

CAE039

NEET(UG) 2017

4. The heating of phenyl-methyl ethers with HI produces
- (1) Iodobenzene
 - (2) Phenol
 - (3) Benzene
 - (4) Ethyl chlorides

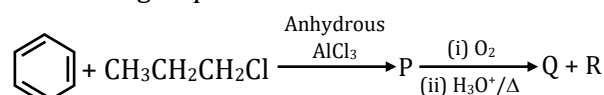
CAE040

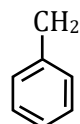
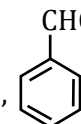
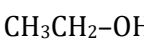
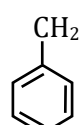
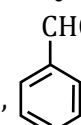
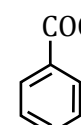
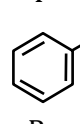
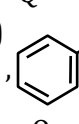
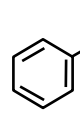
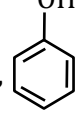
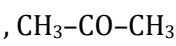
NEET(UG) 2018

5. The compound A on treatment with Na gives B, and with PCl_5 gives C. B and C react together to give diethyl ether. A, B and C are in the order
- (1) $\text{C}_2\text{H}_5\text{OH}$, C_2H_6 , $\text{C}_2\text{H}_5\text{Cl}$
 - (2) $\text{C}_2\text{H}_5\text{OH}$, $\text{C}_2\text{H}_5\text{Cl}$, $\text{C}_2\text{H}_5\text{ONa}$
 - (3) $\text{C}_2\text{H}_5\text{Cl}$, C_2H_6 , $\text{C}_2\text{H}_5\text{OH}$
 - (4) $\text{C}_2\text{H}_5\text{OH}$, $\text{C}_2\text{H}_5\text{ONa}$, $\text{C}_2\text{H}_5\text{Cl}$

CAE041

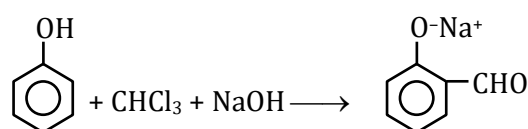
6. Identify the major products P, Q and R in the following sequence of reaction :



- (1)  ,  , 
P Q R
- (2)  ,  , 
P Q R
- (3)  ,  , 
P Q R
- (4)  ,  , 
P Q R

CAE042

7. In the reaction



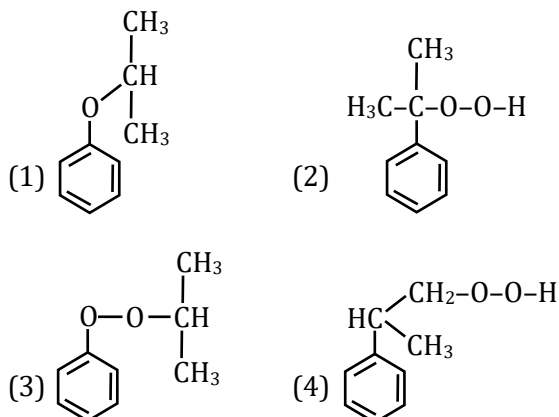
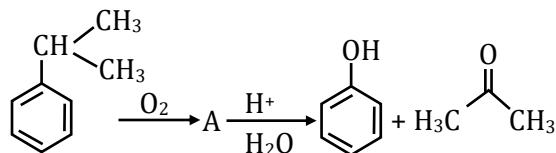
the electrophile involved is

- (1) Dichloromethyl cation (CHCl_2^+)
- (2) Formyl cation (CHO^+)
- (3) Dichloromethyl anion (CHCl_2^-)
- (4) Dichlorocarbene ($:\text{CCl}_2$)

CAE043

NEET(UG) 2019

8. The structure of intermediate A in the following reaction is :-



CAE044

NEET(UG) 2019 (ODISHA)

9. The major products C and D formed in the following reactions respectively are :-



- (1) $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{I}$ and $\text{I}-\text{C}(\text{CH}_3)_3$
 (2) $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{OH}$ and $\text{I}-\text{C}(\text{CH}_3)_3$
 (3) $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{I}$ and $\text{HO}-\text{C}(\text{CH}_3)_3$
 (4) $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{OH}$ and $\text{HO}-\text{C}(\text{CH}_3)_3$

CAE045

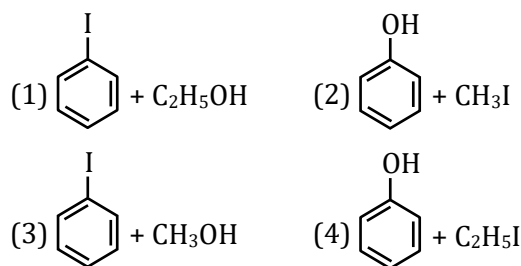
NEET(UG) 2020

10. Reaction between acetone and methylmagnesium chloride followed by hydrolysis will give :

- (1) Isobutyl alcohol
 (2) Isopropyl alcohol
 (3) Sec-butyl alcohol
 (4) Tert-butyl alcohol

CAE046

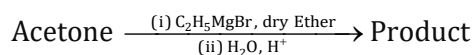
11. Anisole on cleavage with HI gives:



CAE047

NEET(UG) 2021

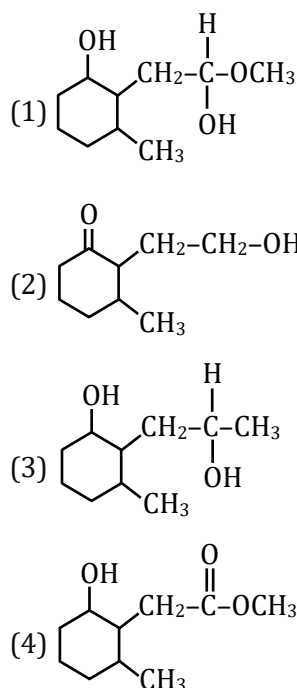
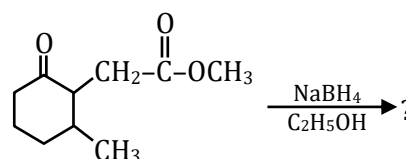
12. What is the IUPAC name of the organic compound formed in the following chemical reaction ?



- (1) 2-methyl propan-2-ol
 (2) pentan-2-ol
 (3) pentan-3-ol
 (4) 2-methyl butan-2-ol

CAE048

13. The product formed in the following chemical reaction is



CAE049

NEET(UG) 2022

14. Given below are two statements :

Statement-I : In Lucas test, primary, secondary and tertiary alcohols are distinguished on the basis of their reactivity with cone. HCl + ZnCl₂, known as Lucas Reagent.

Statement-II : Primary alcohols are most reactive and immediately produce turbidity at room temperature on reaction with Lucas Reagent.

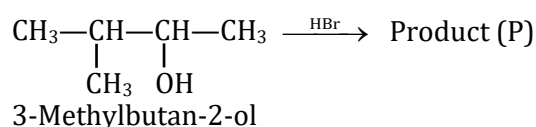
In the light of the above statements, choose the most appropriate answer from the options given below:

- (1) Both Statement-I and Statement-II are incorrect.
- (2) Statement-I is correct but Statement-II is incorrect.
- (3) Statement-I is incorrect but Statement-II is correct
- (4) Both Statement-I and Statement-II are correct

CAE085

NEET(UG) 2023

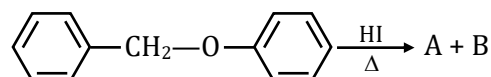
15. Consider the following reaction and identify the product (P).



- (1) CH₃CH=CH—CH₃
- (2) $\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH} - \text{CH}_3 \\ | \quad | \\ \text{CH}_3 \quad \text{Br} \end{array}$
- (3) $\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3 - \text{C} - \text{CH}_2\text{Br} \\ | \\ \text{CH}_3 \end{array}$
- (4) $\begin{array}{c} \text{Br} \\ | \\ \text{CH}_3 - \text{C} - \text{CH}_2 - \text{CH}_3 \\ | \\ \text{CH}_3 \end{array}$

CAE086

16. Consider the following reaction

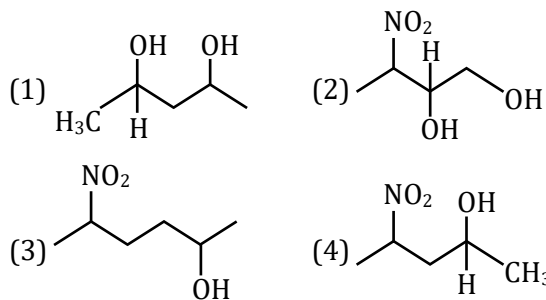


Identify products A and B :-

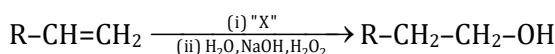
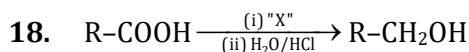
- (1) A = $\text{C}_6\text{H}_5 - \text{CH}_2\text{OH}$ and B = $\text{C}_6\text{H}_5 - \text{I}$
- (2) A = $\text{C}_6\text{H}_5 - \text{CH}_2\text{I}$ and B = $\text{C}_6\text{H}_5 - \text{OH}$
- (3) A = $\text{C}_6\text{H}_5 - \text{CH}_3$ and B = $\text{C}_6\text{H}_5 - \text{I}$
- (4) A = $\text{C}_6\text{H}_5 - \text{CH}_3$ and B = $\text{C}_6\text{H}_5 - \text{OH}$

CAE087

17. Which amongst the following will be most readily dehydrated under acidic conditions ?



CAE088



Identify 'X' in above reactions

- (1) B₂H₆
- (2) LiAlH₄
- (3) NaBH₄
- (4) H₂/Pd

CAE089

19. Reagents which can be used to convert alcohols to carboxylic acids, are

- (A) CrO₃ - H₂SO₄
- (B) K₂Cr₂O₇ + H₂SO₄
- (C) KMnO₄ + KOH/H₃O⁺
- (D) Cu, 573 K
- (E) CrO₃, (CH₃CO)₂O

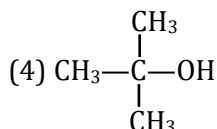
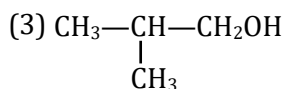
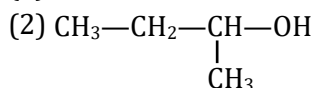
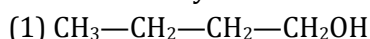
Choose the **most appropriate** answer from the options given below :

- (1) (B), (C) and (D) only
- (2) (B), (D) and (E) only
- (3) (A), (B) and (C) only
- (4) (A), (B) and (E) only

CAE090

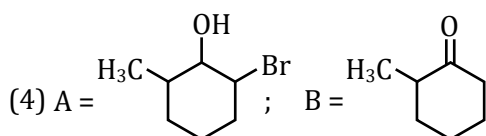
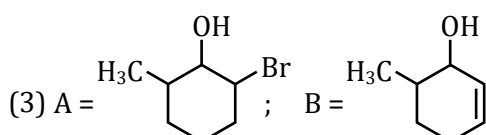
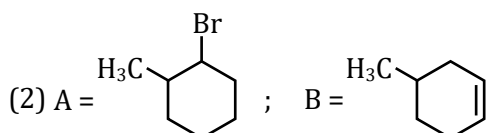
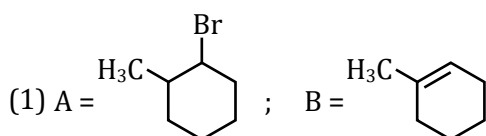
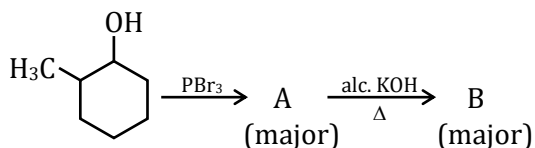
NEET(UG) 2024

20. Which one of the following alcohols reacts instantaneously with Lucas reagent ?



CAE091

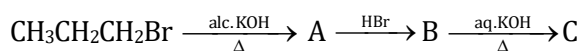
21. Major products A and B formed in the following reaction sequence, are



CAE092

NEET(UG) 2024 (Re-examination)

22. The major product C in the below mentioned reaction is :



(1) Propan-1-ol

(2) Propan-2-ol

(3) Propane

(4) Propyne

CAE094

23. Given below are two statements :

Statement-I : Propene on treatment with diborane gives an addition product with the formula $((\text{CH}_3)_2-\text{CH})_3\text{B}$

Statement-II : Oxidation $((\text{CH}_3)_2-\text{CH})_3\text{B}$ with hydrogen peroxide in presence of NaOH gives propan-2-ol.

In the light of the above statements, choose the **most appropriate** answer from the options given below :

(1) Statement-I is correct but Statement-II is incorrect

(2) Statement-I is incorrect but Statement-II is correct

(3) Both Statement-I and Statement-II are correct

(4) Both Statement-I and Statement-II are incorrect

CAE093

EXERCISE-II (Previous Year Questions)

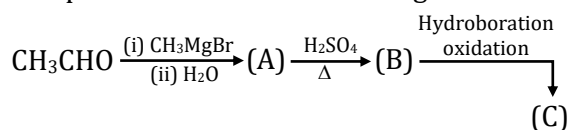
ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	2	2	4	2	4	4	4	2	1	4	2	4	4	2	4
Question	16	17	18	19	20	21	22	23							
Answer	2	1	1	3	4	1	2	2							

EXERCISE-III (Analytical Questions)

Master Your Understanding

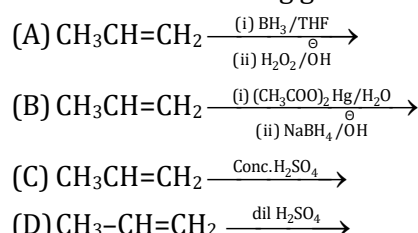
1. Compound A and C in the following reaction are



- (1) Identical (2) Functional isomer
(3) Positional isomer (4) Optical isomer

CAE057

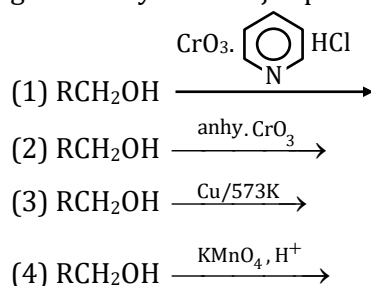
2. Which of the following gives 2°-alcohol ?



- (1) A, B and C are correct
(2) A and B are correct
(3) A and C are correct
(4) B and D are correct

CAE076

3. Which of the following reactions does not give aldehyde as major product ?



CAE060

4. Methanol can be distinguished from ethanol by the following except

- (1) Reaction with iodine and alkali
(2) Reaction with salicylic acid and H_2SO_4
(3) Reaction with Lucas reagent
(4) Boiling point

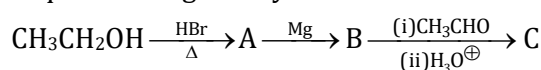
CAE050

5. Ethanol on heating with acetic acid in the presence of a few drops of sulphuric acid gives the smell of

- (1) Oil of wintergreen
(2) Oil of mustard
(3) An ester
(4) Oil of bitter almonds

CAE051

6. The compounds A, B and C in the reaction sequence are given by the set :-



- (1) $\text{CH}_3\text{CH}_2\text{Br}$, $\text{CH}_3\text{CH}_2\text{MgBr}$, $(\text{CH}_3)_3\text{C}-\text{OH}$
(2) $\text{CH}_3\text{CH}_2\text{Br}$, $(\text{CH}_3\text{CH}_2)_2\text{Mg}$, $(\text{CH}_3)_2\text{CHCH}_2\text{OH}$
(3) $\text{CH}_3\text{CH}_2\text{Br}$, $\text{CH}_3\text{CH}_2\text{MgBr}$, $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_3$
(4) CH_3CHBr_2 , $\text{CH}_3\text{CH}(\text{MgBr})_2$, $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$

CAE052

7. Which of the following product will be obtained when neopentyl alcohol is treated with conc. HCl in presence of ZnCl_2 .

- (1) t-butyl chloride
(2) Isobutylene
(3) t-pentyl chloride
(4) Neo pentyl chloride

CAE128

8. Which alcohol produces turbidity with Lucas reagent most slowly

- (1) 2-Butanol
(2) t-Butyl alcohol
(3) Isobutyl alcohol
(4) Diphenyl methanol

CAE129

9. $\text{CH}_3-\text{CH}_2-\text{OH} \xrightarrow[\text{H}_2\text{SO}_4]{\text{NaBr}} \text{(A)} \xrightarrow[\Delta]{\text{Alc. KOH}} \text{(B)} \xrightarrow{\text{HBr}} \text{(C)}$

A, B and C are respectively -

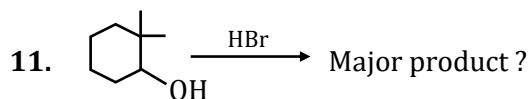
- (1) $\text{CH}_3\text{CH}_2\text{HSO}_4$, $\text{CH}_2=\text{CH}_2$, $\text{BrCH}_2-\text{CH}_2-\text{Br}$
(2) $\text{CH}_3-\text{CH}_2-\text{Br}$, $\text{CH}_2=\text{CH}_2$, $\text{CH}_3-\text{CH}_2-\text{Br}$
(3) $\text{CH}_3-\text{CH}_2-\text{OCH}_2-\text{CH}_3$, $\text{CH}_2=\text{CH}_2$, $\text{CH}_3-\text{CH}_2-\text{Br}$
(4) $\text{CH}_2=\text{CH}_2$, $\text{CH}_3-\text{CH}_2-\text{OH}$, $\text{CH}_3-\text{CH}_2-\text{Br}$

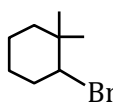
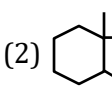
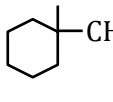
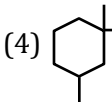
CAE130

10. Best method to convert alcohol into alkyl chloride is -

- (1) $\text{ROH} + \text{SOCl}_2 \longrightarrow \text{R}-\text{Cl} + \text{SO}_2 + \text{HCl}$
(2) $\text{R}-\text{OH} + \text{PCl}_3 \longrightarrow \text{R}-\text{Cl}$
(3) $\text{R}-\text{OH} + \text{PCl}_5 \longrightarrow \text{R}-\text{Cl}$
(4) $\text{R}-\text{OH} + \text{HCl} \longrightarrow \text{R}-\text{Cl} + \text{H}_2\text{O}$

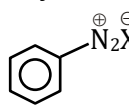
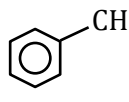
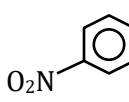
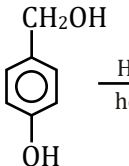
CAE131



- (1)  (2) 
 (3)  (4) 

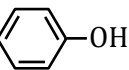
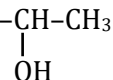
CAE132

12. Identify incorrect match in the following -

- (1)  $\xrightarrow{\text{Cu}_2\text{X}_2}$ ESR
 (2)  $\xrightarrow[\text{dark}]{\text{X}_2/\text{Fe}}$ ESR
 (3)  $\xrightarrow[\text{or heat}]{\text{Br}_2/h\nu}$ FRSR
 (4)  $\xrightarrow[\text{heat}]{\text{HCl}}$ NSR

CAE133

13. The correct reactivity order towards H-X will be

- (I)  (II) $\text{CH}_2=\text{CH}-\text{CH}_2\text{OH}$
 (III) $\text{CH}_3-\text{CH}_2-\text{OH}$ (IV) 

- (1) II > I > III > IV (2) IV > III > II > I
 (3) II > IV > I > III (4) II > IV > III > I

CAE134

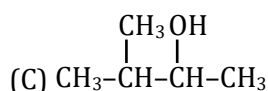
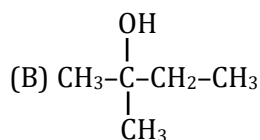
14. For the reaction, $\text{C}_2\text{H}_5\text{OH} + \text{HX} \longrightarrow \text{C}_2\text{H}_5\text{X}$, the order of reactivity is

- (1) $\text{HI} > \text{HCl} > \text{HBr}$ (2) $\text{HI} > \text{HBr} > \text{HCl}$
 (3) $\text{HCl} > \text{HBr} > \text{HI}$ (4) $\text{HBr} > \text{HI} > \text{HCl}$

CAE135

15. Arrange the following alkanols A, B and C in order of their reactivity towards acid catalysed dehydration:-

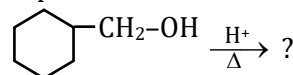
- (A) $\text{CH}_3-\text{CH}-\text{CH}_2-\text{CH}_2-\text{OH}$
 |
 CH_3

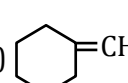
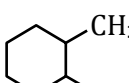
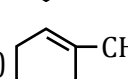
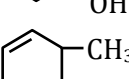


- (1) $\text{A} > \text{B} > \text{C}$ (2) $\text{B} > \text{A} > \text{C}$
 (3) $\text{B} > \text{C} > \text{A}$ (4) $\text{C} > \text{B} > \text{A}$

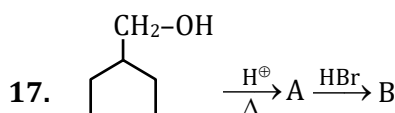
CAE136

16. The major product in the following reaction is

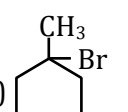
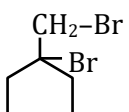
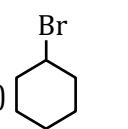
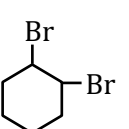


- (1)  (2) 
 (3)  (4) 

CAE137

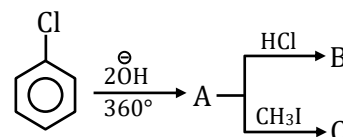


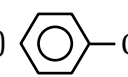
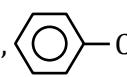
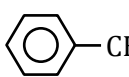
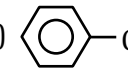
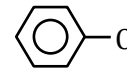
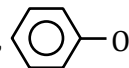
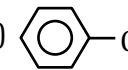
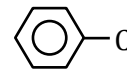
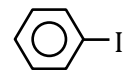
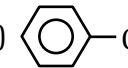
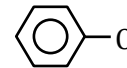
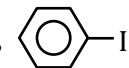
What is the structure of B :-

- (1)  (2) 
 (3)  (4) 

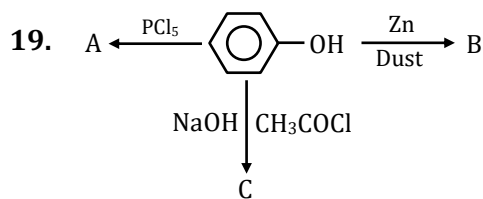
CAE138

18. The structures of the compounds/ions A, B and C in the reaction sequence are given by the set :-



- (1) , , 
 (2) , , 
 (3) , , 
 (4) , , 

CAE054

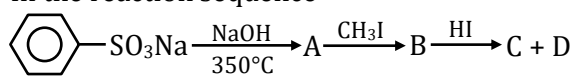


The compounds A, B and C in the above reaction sequence are :-

- (1) Chlorobenzene, benzene, methyl benzoate
- (2) Chlorobenzene, benzene, phenyl acetate
- (3) Benzyl chloride, benzene, phenyl acetate
- (4) Benzyl chloride, benzene, phenylacetyl chloride

CAE055

20. In the reaction sequence –

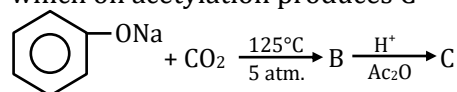


A, B, C and D are given by the set :-

- (1) Sodium phenate, anisole, $\text{C}_6\text{H}_5\text{I}$, CH_3OH
- (2) Sodium phenate, phenetole, $\text{C}_2\text{H}_5\text{I}$, $\text{C}_6\text{H}_5\text{OH}$
- (3) Sodium phenate, anisole, $\text{C}_6\text{H}_5\text{OH}$, CH_3I
- (4) Sodium phenate, phenetole, $\text{C}_6\text{H}_5\text{I}$, $\text{C}_2\text{H}_5\text{OH}$

CAE056

21. Sodium phenoxide when heated with CO_2 under pressure at 125°C yields a product which on acetylation produces C

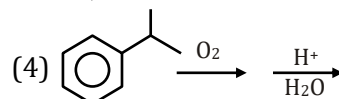
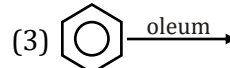
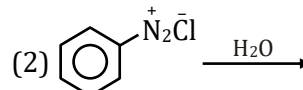
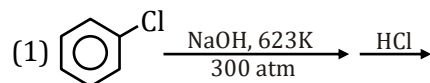


The major product C would be :

- (1)
- (2)
- (3)
- (4)

CAE058

22. Which of the following reaction sequence does not give phenol ?



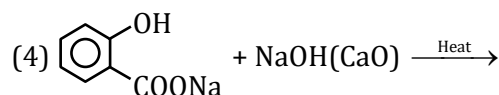
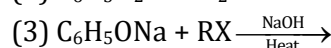
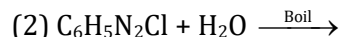
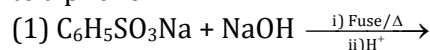
CAE059

23. Which of the following statement is/are correct ?

- (A) Phenol is less acidic than ethanol
- (B) Phenol is less acidic than acetic acid
- (C) Phenol is more acidic than acetic acid
- (D) Acetic acid is more acidic than ethanol
- (1) A, B and C are correct
- (2) A, B are correct
- (3) B and D are correct
- (4) A and C are correct

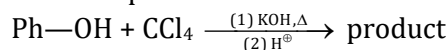
CAE078

24. Which of the following reactions will not lead to a phenol :-



CAE053

25. The final product in the reaction is



- (1) Salicylaldehyde
- (2) Salicylic acid
- (3) Methyl salicylate
- (4) Benzyl chloride

CAE139

EXERCISE-III (Analytical Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	4	4	3	3	3	3	3	2	1	2	1	4	2	3
Question	16	17	18	19	20	21	22	23	24	25					
Answer	3	3	2	2	3	3	3	3	3	2					