

NARAYANA EDUCATIONAL INSTITUTIONS

ETHERS DPP

$$H_3C$$
 $CH_2 \xrightarrow{LiAlH_4} A, A \text{ is:}$

1. H_3

1)
$$CH_3CHCH_2OH$$
 2) $CH_3CH_2CH_2CH_2OH$ 3) CH_3 CH_3 CH_3 4) no reaction CH_3

2.
$$CH_3 CHCH_3 \xrightarrow{alc./KOH} A \xrightarrow{HBr/peroxide} B \xrightarrow{CH_3ONa} C$$

$$Br$$

In the above reaction sequence, the final product is:

1) diethyl ether

2) 1-methoxypropane

3) isopropyl alcohol

4) propylene glycol

3.

(X) and (Y) are respectively:

1) LiAlH4 and NaBH4

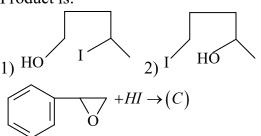
3) LiAlH4 and LiAlH4 / Al Cl3 $\,$

2) LiAlH₄/AlCl₃ and LiAlH₄

4) H₂/Ni and H₂/Pt

$$+HI \rightarrow \text{Product},$$

4. Product is:



5. C is:

4) none of these

6. Which of the following reaction is possible?

1)
$$C_6H_5OH + HBr \rightarrow C_6H_5Br + H_2O$$

2)
$$(CH_3)_3 CCl + NaOCH_3 \rightarrow (CH_3)_3 COCH_3 + NaCl$$

$$Cl$$
 OMe $Cl + CH_3ONa \xrightarrow{CH_3OH}$ Cl

$$\begin{array}{c}
 & \longrightarrow \\
 & +C_6H_5MgBr \xrightarrow{H_3O^+} C_6H_5CH_2C(CH_3)_2 \\
4) & OH
\end{array}$$

7.

$$H_3C - CH - CH_2 \xrightarrow{(i) CH_3 \equiv C^-} Product?$$

Product is:

1)
$$H_3C - CH - CH_2 - CH = CH_2 - CH_3$$
 2) OMe

$$H_3C-CH-CH_2-CH\equiv C-CH_3$$

ОМе

3)

3)
$$H_3C - CH - CH_2 - C \equiv C - CH_3$$

OH

$$H_3C - CH - CH - C \equiv C - CH_3$$

 $\xrightarrow{H^{\circ}/H_2O}$ Product

8. The main product is:

4)

$$H_3C$$

$$A \leftarrow \stackrel{NH_3}{\longrightarrow} O \stackrel{HN_3}{\longrightarrow} B$$

10.

The products A and B are respectively:

$$H_3C^{(1)}$$
 OH N_3 $:B =$ OH OH

$$A = \begin{pmatrix} OH & N_3 & CH_3 \\ A = & & H-N & OH \end{pmatrix}$$

$$A = \begin{pmatrix} H_2N & N_3 & N_3 \\ & & \vdots \\ & & \vdots \\ & & OH \end{pmatrix} OH$$

$$\begin{array}{c}
 & \xrightarrow{H^{\oplus}/H_2O} \\
 & OCH_3
\end{array}$$

2)
$$CH_3CH_2 - OH$$

$$\frac{SOCl_2}{Pyridine, \Delta} \longrightarrow \frac{Mg}{Et_2O} \longrightarrow \frac{H^{\oplus}}{H^{\oplus}} \longrightarrow \text{Product}$$

$$CH_2OH$$

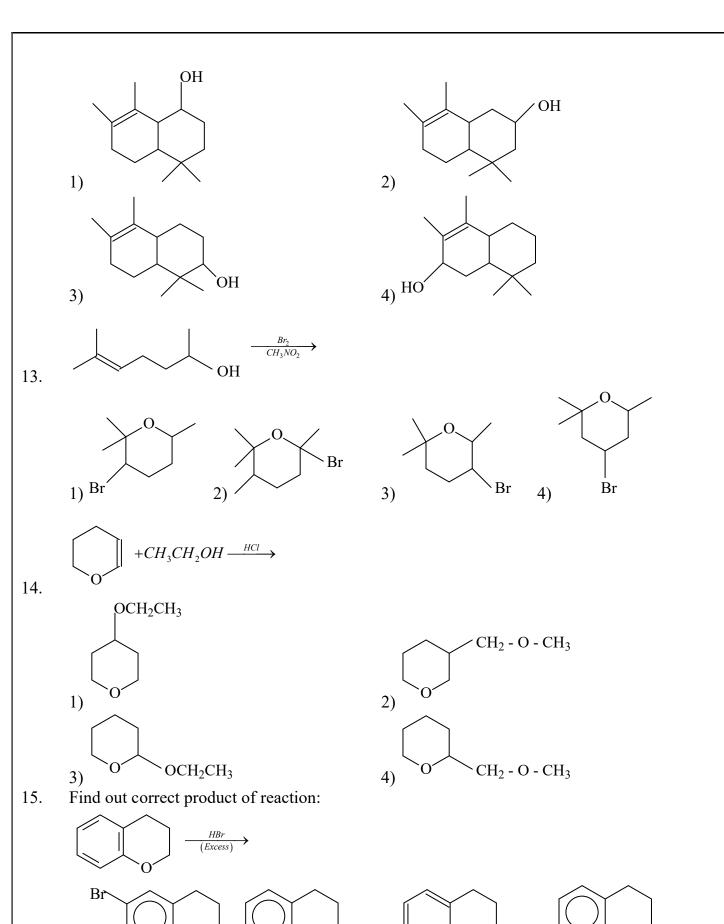
11. CH₂OH
The final product is:

OH

OH

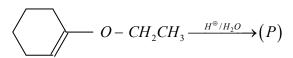
OH

$$\frac{\frac{\theta}{H/H_2O}}{\Delta}$$



HO

1)
16. In the given reaction



P will be:

17.

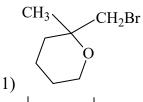
$$(2)$$
 \bigcirc 0

$$(4)$$
 CH₂-OH

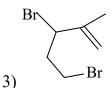
$$\begin{array}{c}
CH_3 & \xrightarrow{Br_2, CCl_4}
\end{array}$$

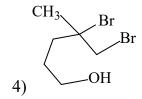
The major product obtained in this reaction is:

2)



CH₃ Br





18. Is prepared best by the reaction:

1)
$$(CH_3)_3 C - Br + (CH_3)_3 COK \rightarrow$$

2)
$$(CH_3)_3 C - OH \xrightarrow{H_2SO_4} \longrightarrow$$

3)
$$(CH_3)_3 C - OH \xrightarrow{Al_2O_3 \atop 240^{\circ}C}$$

4)
$$(CH_3)_2 C = CH_2 \xrightarrow{Conc. H_2SO_4} \xrightarrow{(CH_3)_3 COH}$$

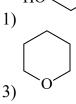
19. When 2-chloroethanol is warmed slightly with dilute NaOH, the major product formed is:

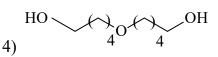
1)
$$Cl - CH_2 - CH_2 - O - CH_2 - CH_2 - CI$$

$$2)\ HO-CH_2-CH_2-CH_2-OH$$

3)
$$HO - CH_2 - CH_2 - CH_2 - OH$$

The major product formed is:





21. Consider the following reaction,

$$H_2C = CH - CH_2CH_2 - OH \xrightarrow{Br_2/CCl_4} A \xrightarrow{Dil.KOH} B$$

The product B is:

$$O$$
 Br

In the reaction, 22.

$$\begin{array}{c} \text{H}_{3}\text{C} \\ \text{H}_{3}\text{C} \end{array} \xrightarrow{C} \begin{array}{c} C - CH_{2} \xrightarrow{CH_{3}OH} \\ H^{\oplus} \end{array} \rightarrow \left(X\right)$$

The product (X) has the structure:

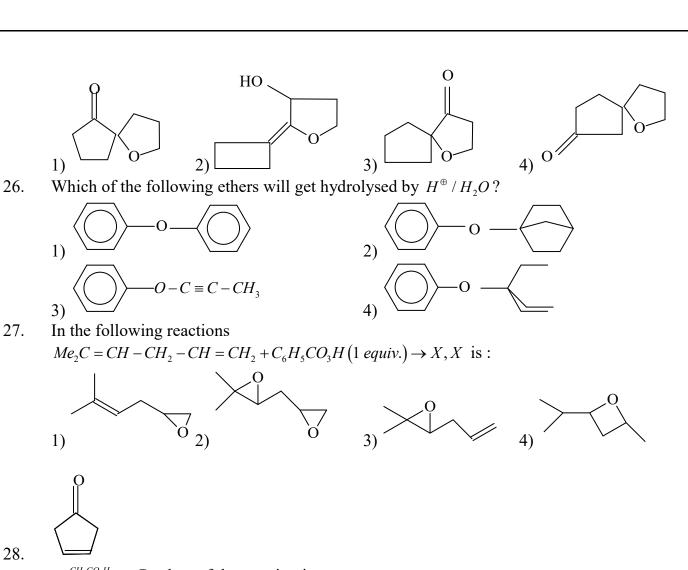
23. In the reaction:

$$Me_3C - O - CH_2CH_3 + HI_{(1Mole)} \xrightarrow{\Delta}$$

- 1) $Me_3C OH + CH_3CH_2I$
- 3) $Me_3C I + CH_3CH_2I$
- The product of the reaction is: 24.

- 2) $Me_3C I + CH_3CH_2OH$
- 4) $Me_3C OH + CH_3CH_2OH$

$$_{3)}$$
 HS $_{50}$ $_{4)}$ OH OH



 $\xrightarrow{CH_3CO_3H} \text{; Product of the reaction is :}$

29. Select the major product of following reaction:

Predict the correct option:

-ОН

4) No reaction

KEY

CHEMISTRY										
1-10	3	2	3	2	1	4	2	2	3	1
11-20	2	3	1	3	2	2	1	4	4	3
21-30	4	1	2	1	1	4	3	2	4	4

SOLUTIONS:

CHEMISTRY

1.

$$\stackrel{\text{LiAIH}_4}{\frown} \longrightarrow \bigcirc$$

2.

$$\xrightarrow{alc.KOH} \xrightarrow{Br} \xrightarrow{HBr} \xrightarrow{Br} CH_3 \stackrel{-}{O} \stackrel{\oplus}{N} a$$

4.

$$\begin{array}{c} & & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

6. S_N2 reaction do not proceed with 3° halide, vinyl halide and phenyl halide.

$$CH_{3}-C \stackrel{\odot}{=} \stackrel{C}{C} + CH_{2}-CH-CH_{3} - CH_{2}-CH-CH_{3} - CH_{3}-CH_{3}-CH_{3}-CH_{4}-CH_{3} - CH_{3}-CH_{4}-CH_{3}-CH_{3}-CH_{4}-CH_{3}-CH_{4}-CH_{3}-CH_{4}-CH_{3}-CH_{4}-CH_{3}-CH_{4}-CH_{3}-CH_{4}-CH_$$

$$\begin{array}{c} & & & \\ & &$$

9.

$$N_3 H \, \Longleftrightarrow \, N_3^{\ominus} \, + \, H^{\oplus}$$

$$H_3C$$
 N_3C
 N_3
 $N_$

10.

11.

$$OH \xrightarrow{SOCl_2} OH \xrightarrow{SOCl_2} Cl \xrightarrow{Mg} Et_2O$$

$$OH \xrightarrow{SOCl_2} OH$$

$$OH \xrightarrow{Br_2} \overrightarrow{Br} \xrightarrow{-H^{\oplus}} O$$

14.

15.

16.

17.

$$\begin{array}{c}
CH_3 \\
Br_2. CCI_4
\end{array}$$

$$OH$$



HO
$$CI \xrightarrow{\mathring{\mathbb{N}} a \mathring{\mathbb{O}} H} Q \xrightarrow{CI} O$$

20.

HO OH
$$\stackrel{H^{\oplus}}{\longrightarrow}$$
 $\stackrel{H^{\oplus}}{\longrightarrow}$ $\stackrel{H^{\oplus}}{\longrightarrow}$ $\stackrel{H^{\oplus}}{\longrightarrow}$ $\stackrel{H^{\oplus}}{\longrightarrow}$ $\stackrel{H^{\oplus}}{\longrightarrow}$

21.

$$OH \xrightarrow{Br_3/CCl_4} \stackrel{\stackrel{\oplus}{Br}}{\longrightarrow} OH$$

22.

23.

26.

$$CH_3CH_2\overset{\circ}{O} \longrightarrow CI \longrightarrow CH_2$$

$$CH_2 \longrightarrow CH_2$$

$$CH_3 \longrightarrow CH_2$$

$$CH_3 \longrightarrow CH_3$$