

## MCA of Epoxides

1

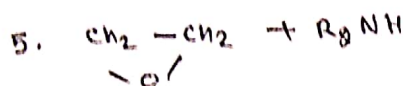
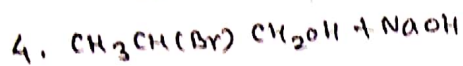
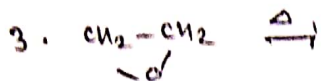
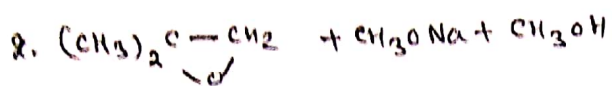
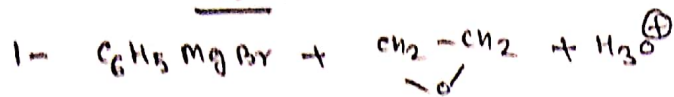
1. Halohydrins when treated with a base form epoxides. This is an example of involving -  
(a)  $S_N1$  reaction (b) Neighbouring group participation (c)  $S_N2$  (d)  $S_N1$  reaction
2. Isobutylene oxide when treated with methanol in the presence of an acid gives -  
(a) 1-methoxy-2-methyl-2-propanol (b) 2-methoxy-2-methyl-1-propanol (c) both (d) None of these
3. Ethylene oxide undergoes molecular rearrangement when heated to give -  
(a) vinyl alcohol (b) Acetaldehyde (c) Both of these (d) None of these
4. Isobutylene oxide when treated with methanol in the presence of sodium methoxide gives -  
(a) 2-methoxy-2-methyl-1-propanol (b) 1-methoxy-2-methyl-2-propanol (c) both (d) None of these
5. 2-methyl-2,3-epoxybutane boron trifluoride complex undergoes molecular rearrangement to give -  
(a) 3-methylbutanal (b) 3-methyl-2-butanone (c) 2-methylbutanal (d) None
6. Styrene oxide react with phenyl lithium followed by acid hydrolysis to give -  
(a) 2,2-diphenylethanol (b) 1,2-diphenylethanol (c) 1,2-diphenylethanone (d) None

## Matching Questions

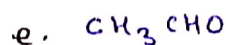
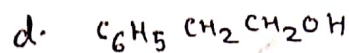
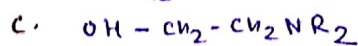
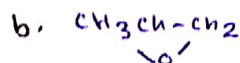
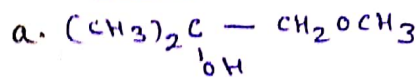
②

Match the reagent given in List A with the product (s) given in List B.

### List A



### List B



Ans 1. d                      3. e                      5. c  
2. a                      4. b

### Fill in the blanks

1. Halohydrins when treated with a base form epoxides. This is an example of nucleophilic substitution involving ----- (neighbour group participation,
2. Isobutylene oxide when treated with methanol in the presence of ----- cyclisation an acid gives ----- (2-methoxy-2-methyl-1-propanol, 1-methoxy-2-methyl-2-propanol)
3. Ethylene oxide undergoes molecular rearrangement when heated to form ----- (Acetaldehyde, vinyl alcohol)

Ans- 1- neighbour group participation    2. 2-methoxy-2-methyl-1-propanol  
3- Acetaldehyde