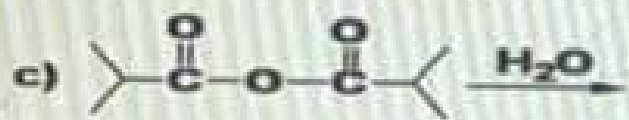


4 / 25

Which of the following reactions does not occur?



A

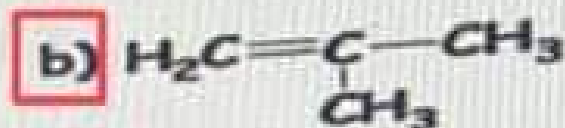
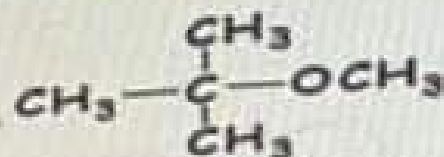
B

C

D

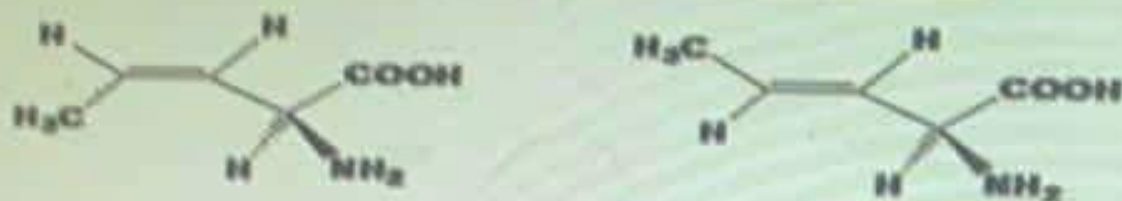
E

Which alkene reacts with methanol in presence of acid catalyst to give the following ether?



Mark This Qu

Which statement is true about the following pair of compounds?



They have:

- a) different physical and chemical properties
- b) same physical and chemical properties
- c) same chemical behavior towards chiral reagents
- d) same chemical behavior towards achiral reagents

B

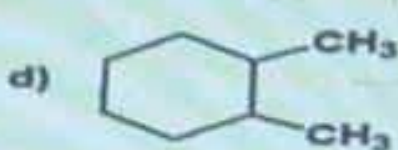
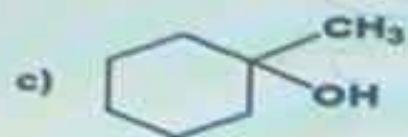
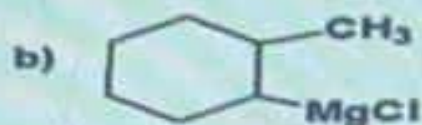
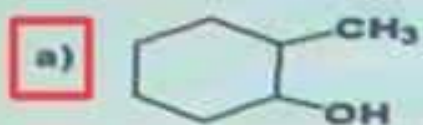
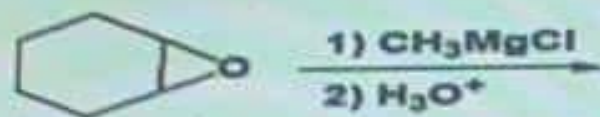
C

D

E

9/25

What is the product of this reaction?



A

B

C

D

E

Which statement is true for S_N2 reactions?

- a) Reaction rate depends on stability of carbocation
- b) Reaction rate depends only on the nucleophile
- c) Reaction occurs with inversion of configuration
- d) Reaction is fastest with tertiary halides

A

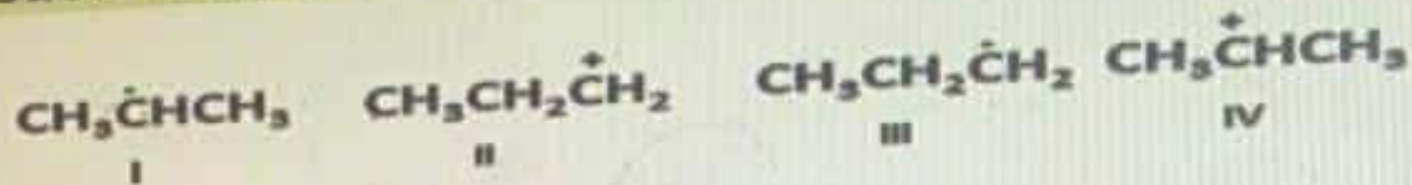
B

C

D

E

Which intermediate is formed when propane reacts with bromine in presence of heat or light?



a) I + II

c) II + III

b) I + IV

d) I + III

C

D

E

15/
25

Which reaction is characteristic of alkenes and alkynes?

- a) Nucleophilic addition reaction
- b) Electrophilic addition reaction
- c) Electrophilic substitution reaction
- d) Nucleophilic substitution reaction

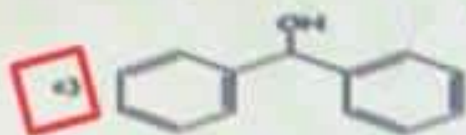
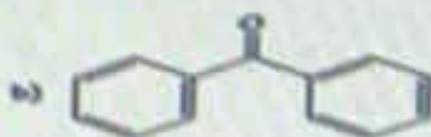
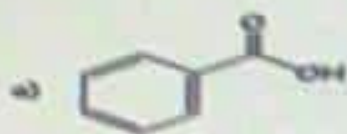
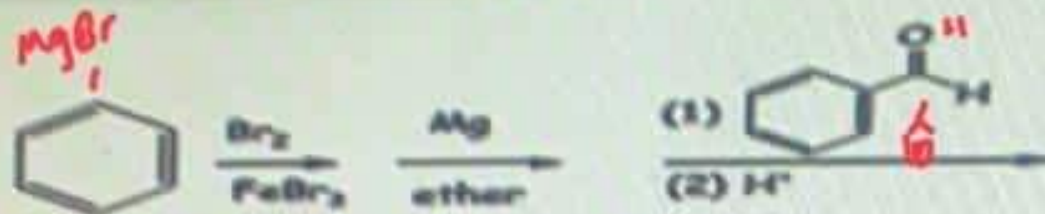
B

C

D

E

Which is the final product of this reaction sequence?

 B C D E

16/
25

Which reaction does not give an alcohol?



A

B

C

D

E

7 / 25

Which halide does **not** react with nucleophiles?



A

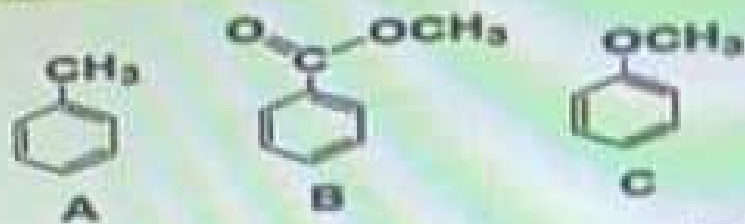
B

C

D

E

What is the correct order of decreasing reactivity (most reactive first) of these compounds toward electrophilic aromatic substitution?



- a) $C > B > A$ b) $A > C > B$
c) $B > C > A$ **d) $C > A > B$**

Mark This Question

B

C

D

E

Which of the following is an acetal?

- a) COc1ccccc1OC
- b) COc1ccccc1OC**
- c) Oc1ccccc1OC
- d) Oc1ccccc1

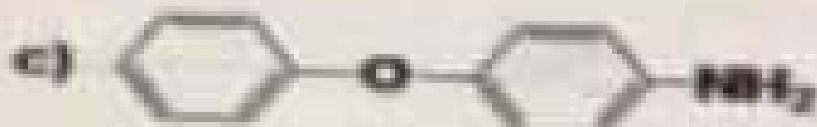
C

D

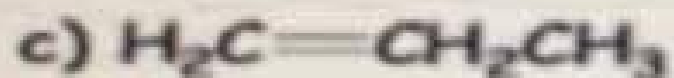
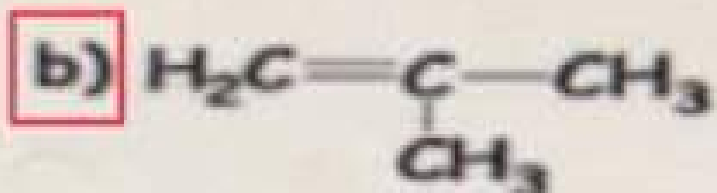
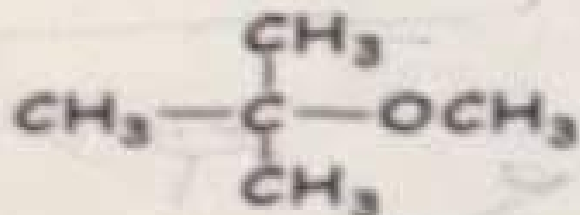
E

Mark This Question

What is the product of this reaction?



Which alkene reacts with methanol in presence of acid catalyst to give the following ether?

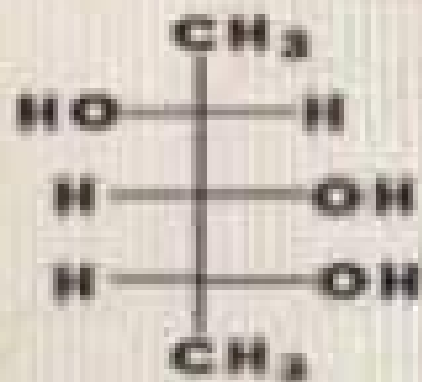


Which halide reacts fastest with $\text{CH}_3\text{S}^- \text{Na}^+$?

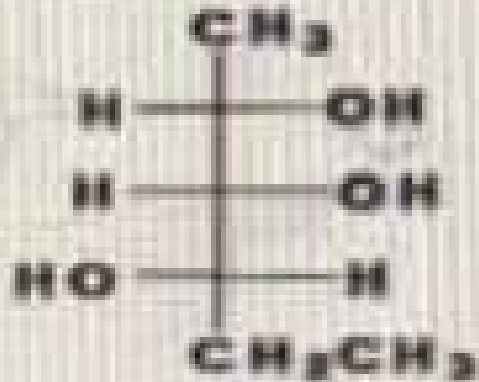


Chiral

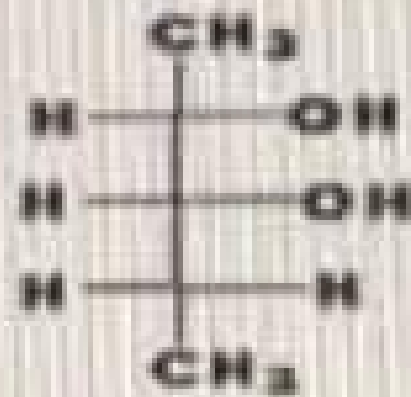
Which compound(s) can show optical activity?



I ✓



II ✓



III ✓

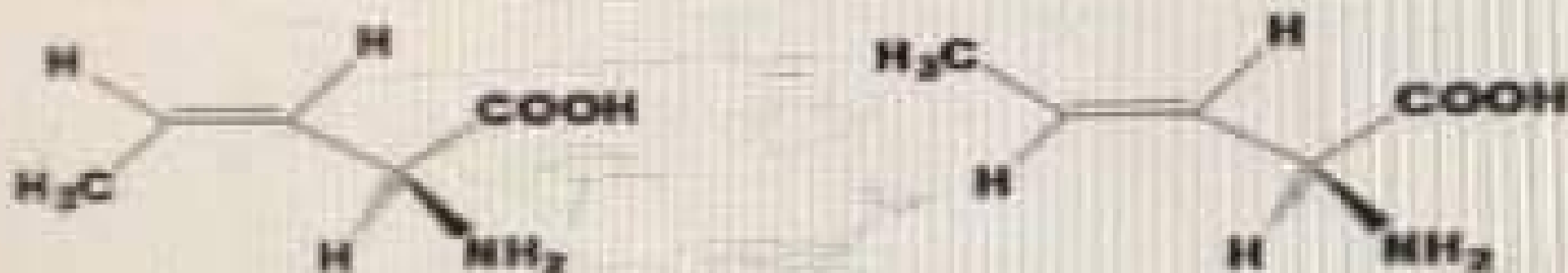
a) II and III

b) I and II

c) I and III

d) all

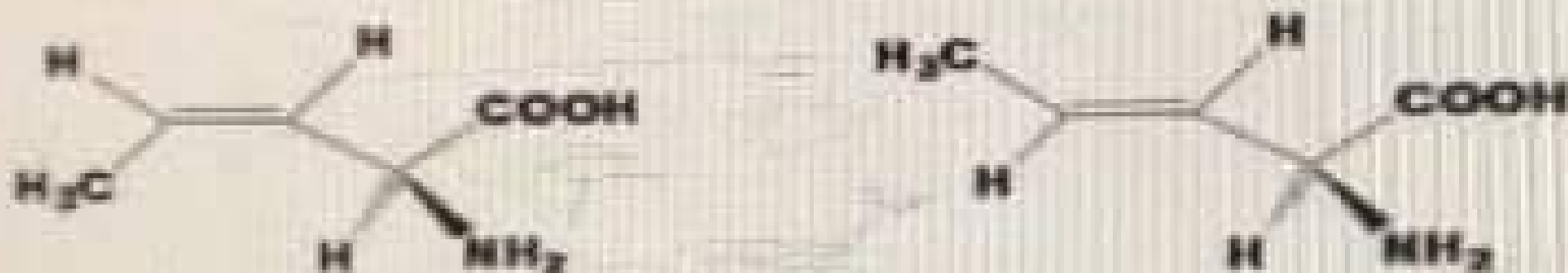
Which statement is true about the following pair of compounds?



They have:

- a) same physical and chemical properties
- b) same chemical behavior towards chiral reagents
- c) different physical and chemical properties
- d) same chemical behavior towards achiral reagents

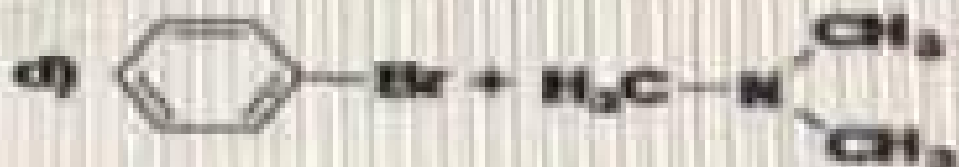
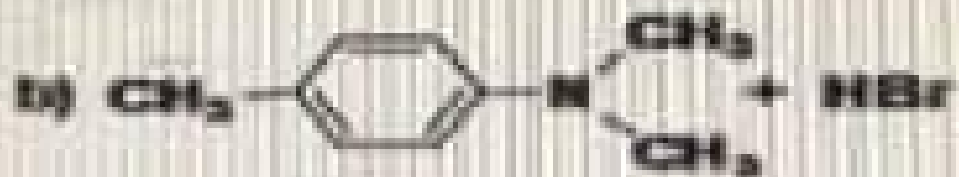
Which statement is true about the following pair of compounds?



They have:

- a) same physical and chemical properties
- b) same chemical behavior towards chiral reagents
- c) different physical and chemical properties
- d) same chemical behavior towards achiral reagents

What is the product of the following reaction?



What is the formal charge of N in this structure?



(atomic No of N = 7)

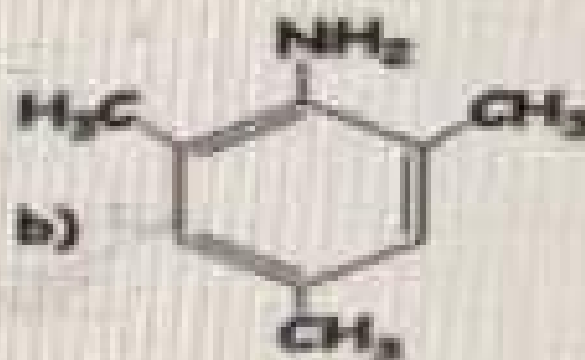
a) 0

b) -1

c) +2

d) +1

Which of the following is a tertiary amine?



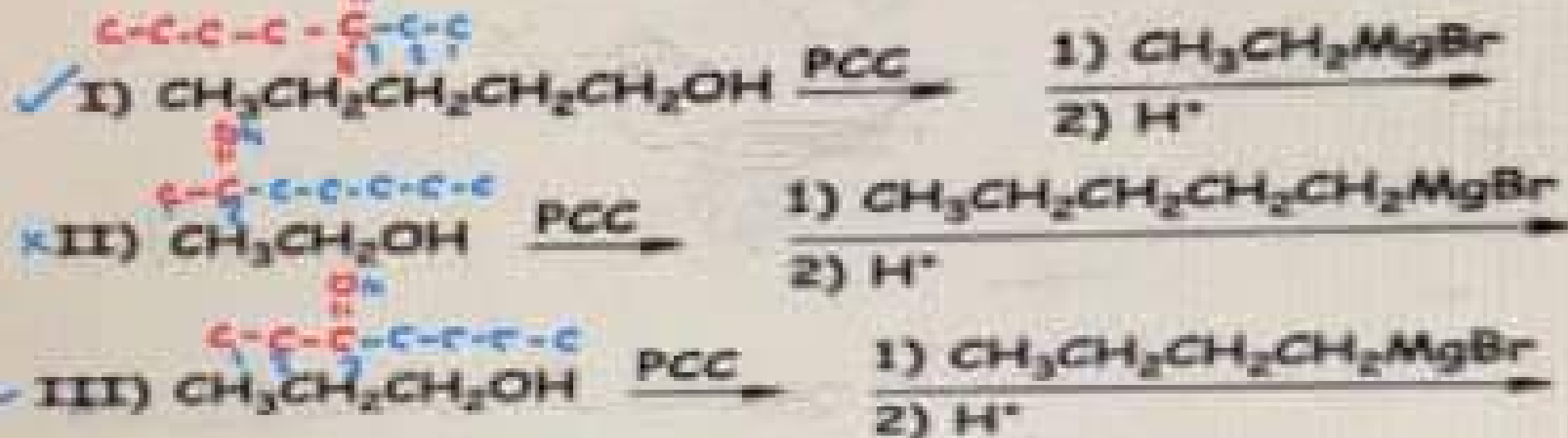
What is the general molecular formula of an acyclic alkane?



Which reaction is characteristic of alkenes and alkynes?

- a) Nucleophilic addition reaction
- b) Electrophilic addition reaction
- c) Electrophilic substitution reaction
- d) Nucleophilic substitution reaction

Which reaction(s) would give 3-heptanol?



a) II only

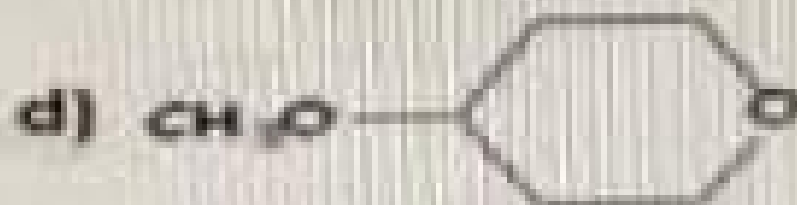
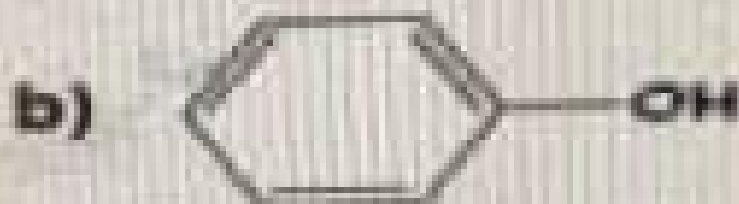
b) I and III

c) II and III

d) I and II

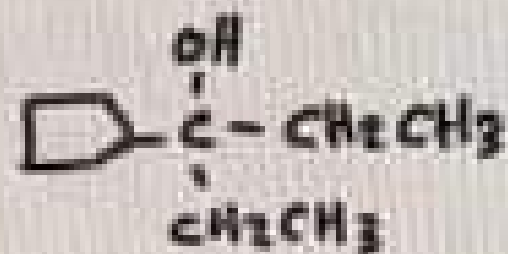


Which structure is a hemiacetal?

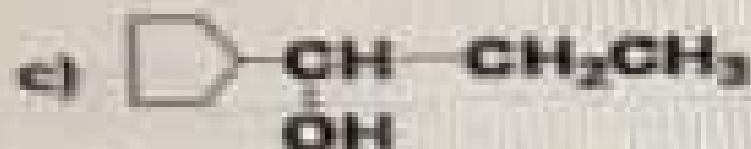
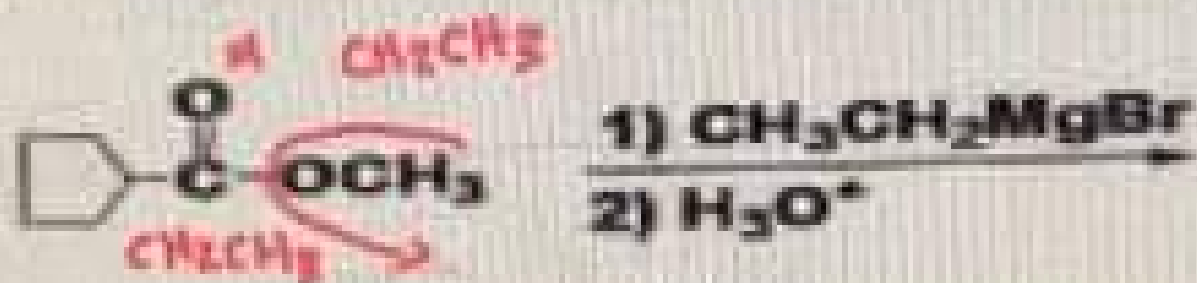


Which is the product of the following reaction?

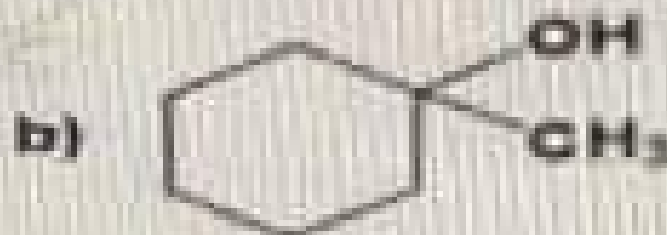




Which is a major product of this reaction?



What is the product of this reaction?



Which intermediate is formed when propane reacts with bromine in presence of heat or light?



a) I + II

b) I + IV

c) II + III

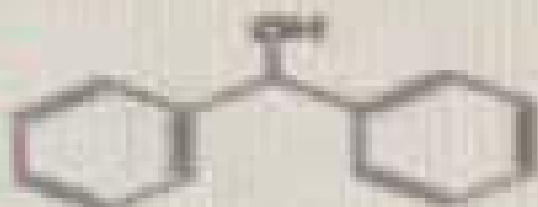
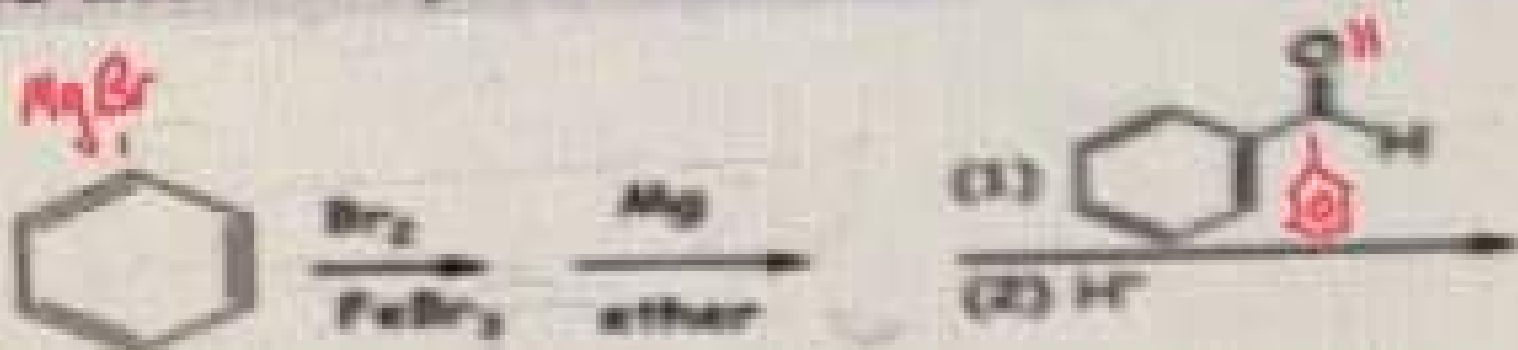
d) I + III

Which is the correct IUPAC name of this molecule?



- a) 5-chloro-3-methyl-2-hexanone
- b) 5-chloro-3-methylhexanone
- c) 1-chloro-1,3-dimethyl-4-pentanone
- d) 5-chloro-3,5-dimethyl-2-pentanone

Which is the final product of this reaction sequence?



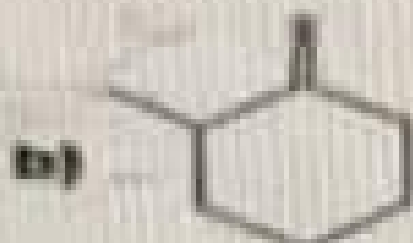
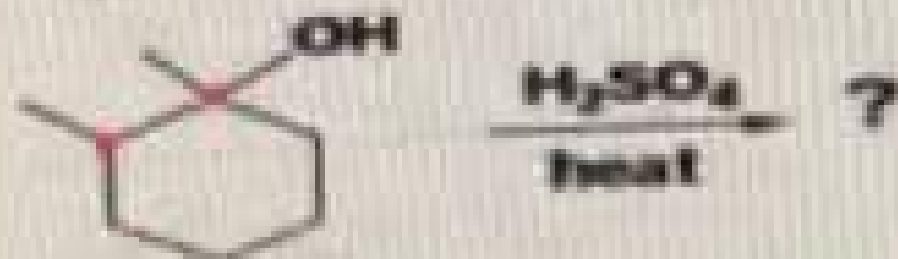
d



Which is the least reactive towards nucleophilic acyl substitution?



What is the major product of this reaction?



Which statement is true for S_N2 reactions?

- a) Reaction rate depends on stability of carbocation
- b) Reaction rate depends only on the nucleophile
- c) Reaction is fastest with tertiary halides
- d) Reaction occurs with inversion of configuration

Which reaction would give a carboxylic acid?

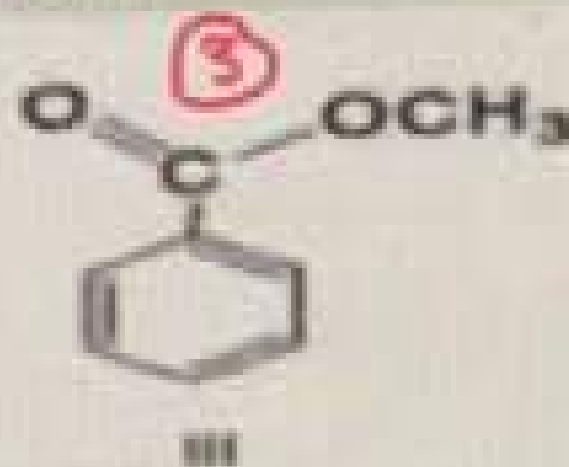
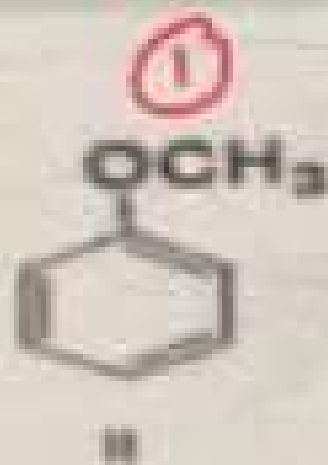


Which conditions would achieve the following transformation?



- a) $\text{CH}_3\text{Cl} / \text{AlCl}_3$, then $\text{Br}_2 / \text{FeBr}_3$
- b) $\text{CH}_3\text{COCl} / \text{AlCl}_3$, then $\text{Br}_2 / \text{FeBr}_3$
- c) $\text{Br}_2 / \text{FeBr}_3$, then $\text{CH}_3\text{COCl} / \text{AlCl}_3$
- d) $\text{Br}_2 / \text{FeBr}_3$, then $\text{CH}_3\text{Cl} / \text{AlCl}_3$

What is the correct order of decreasing reactivity (most reactive first) of these compounds toward electrophilic aromatic substitution?



a) I > III > II

b) III > II > I

c) II > I > III

d) II > III > I