Organic Chimestry

Chapter 8 test bank

written by:
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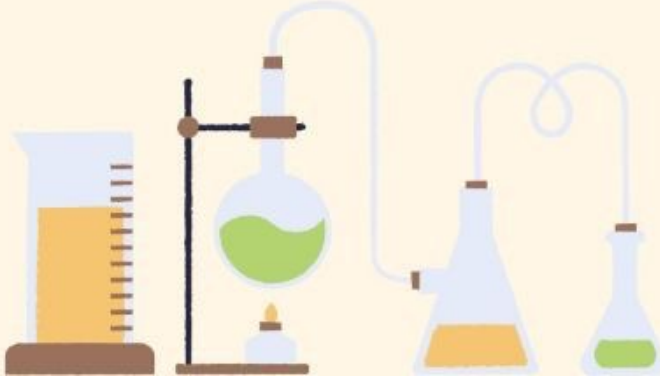
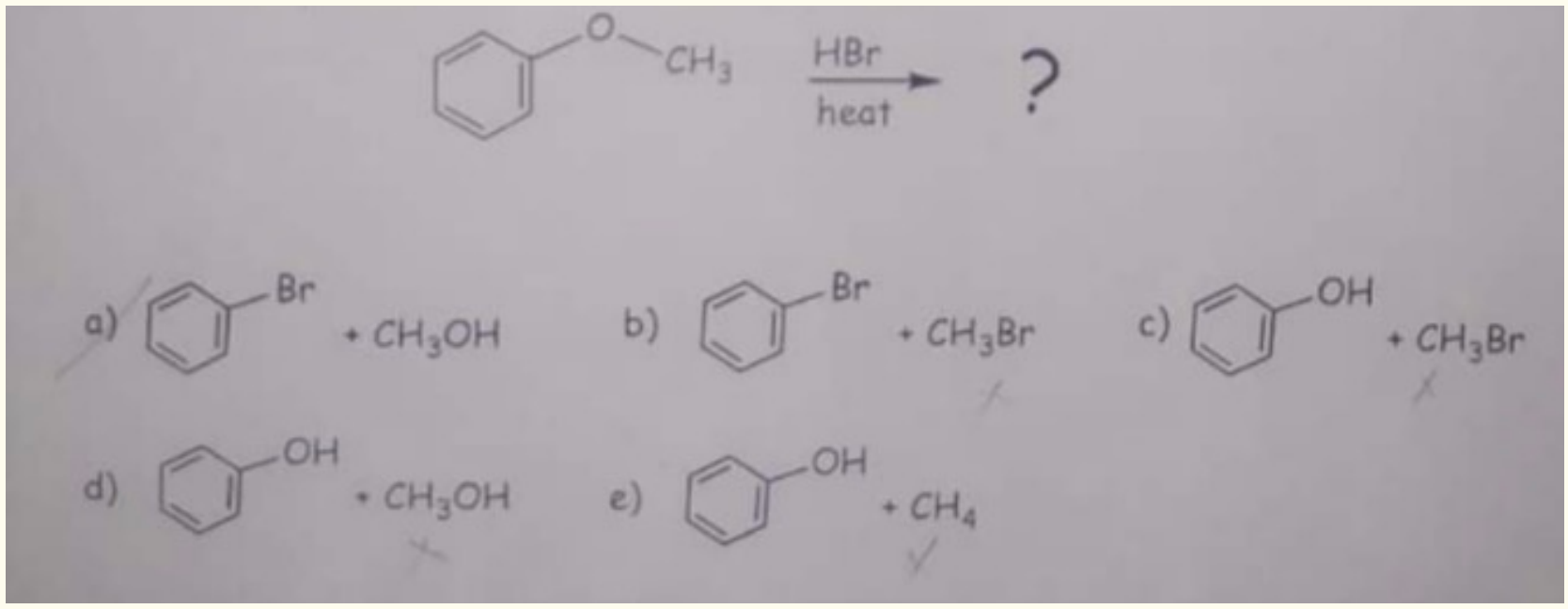
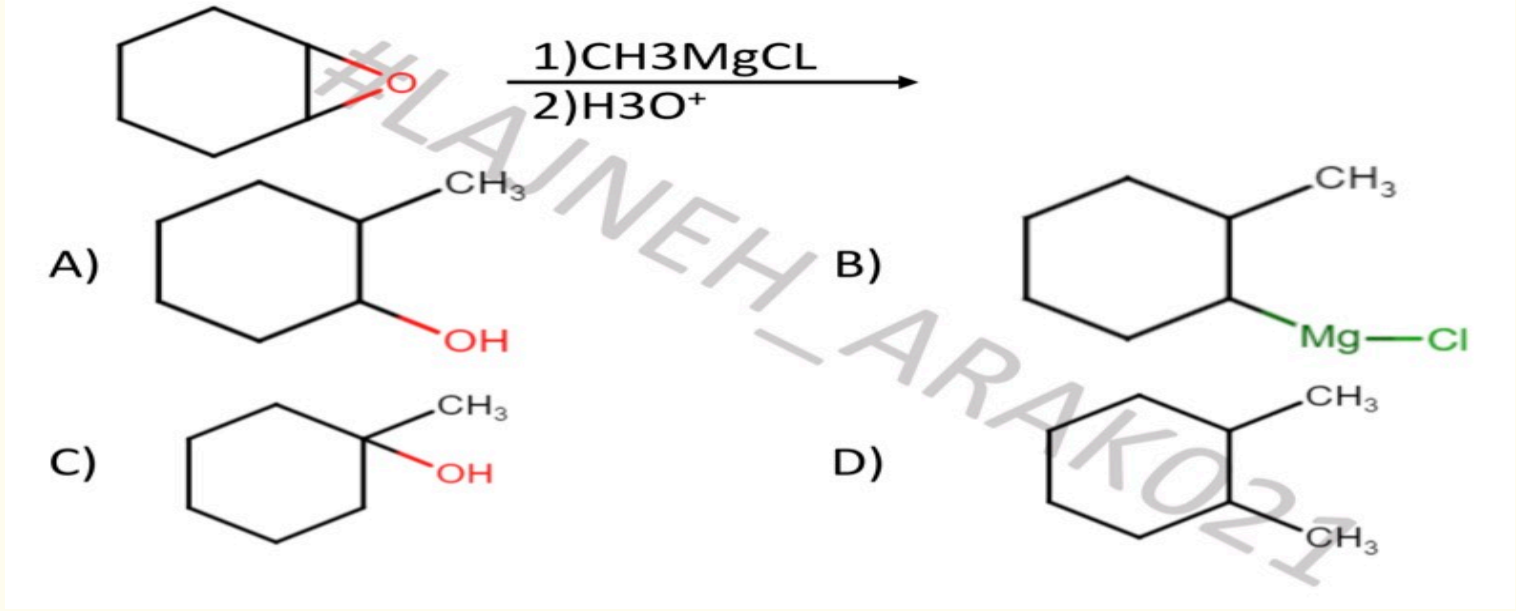


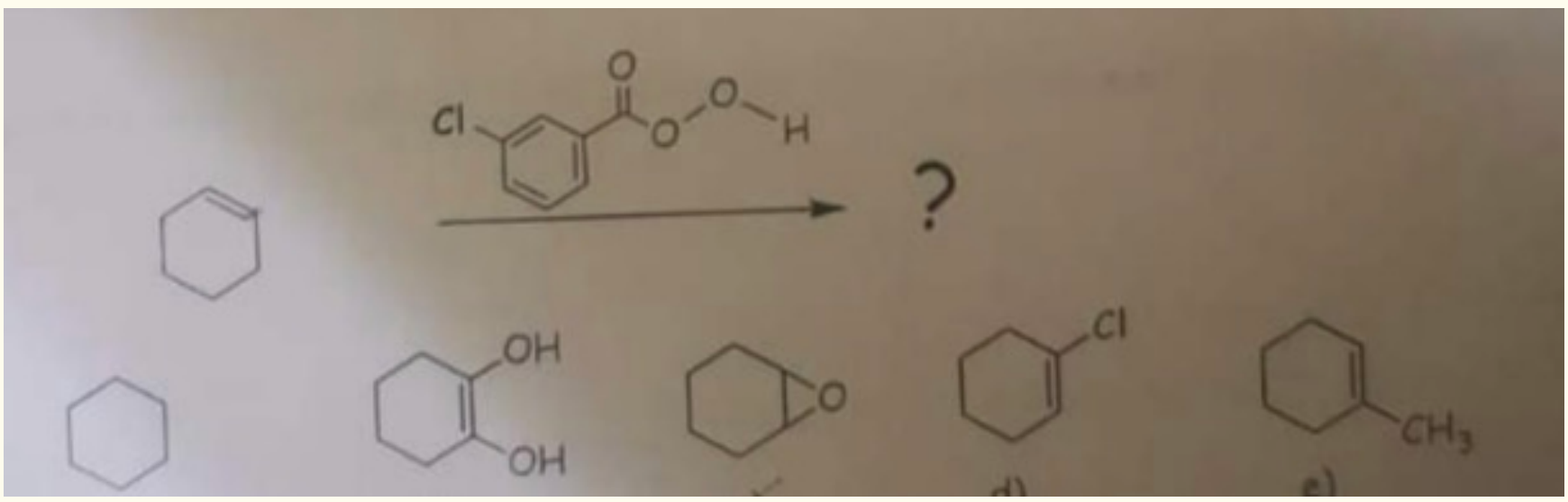
1) What is the product of the following reaction?



2) What is the product of the following reaction?

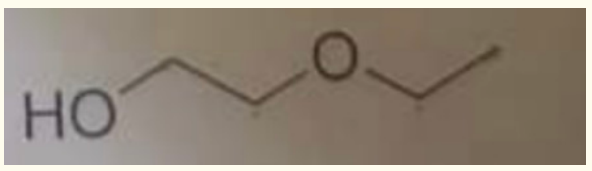


3) What is the product of the following reaction?



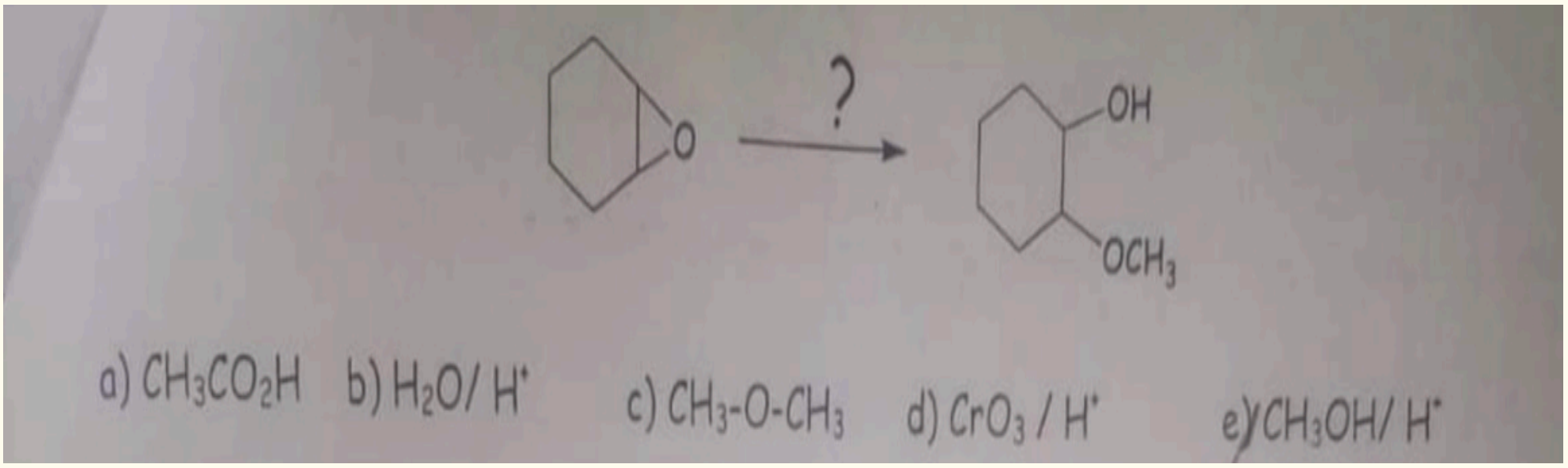
a) b) c) d) e)

4) Name the following organic compound

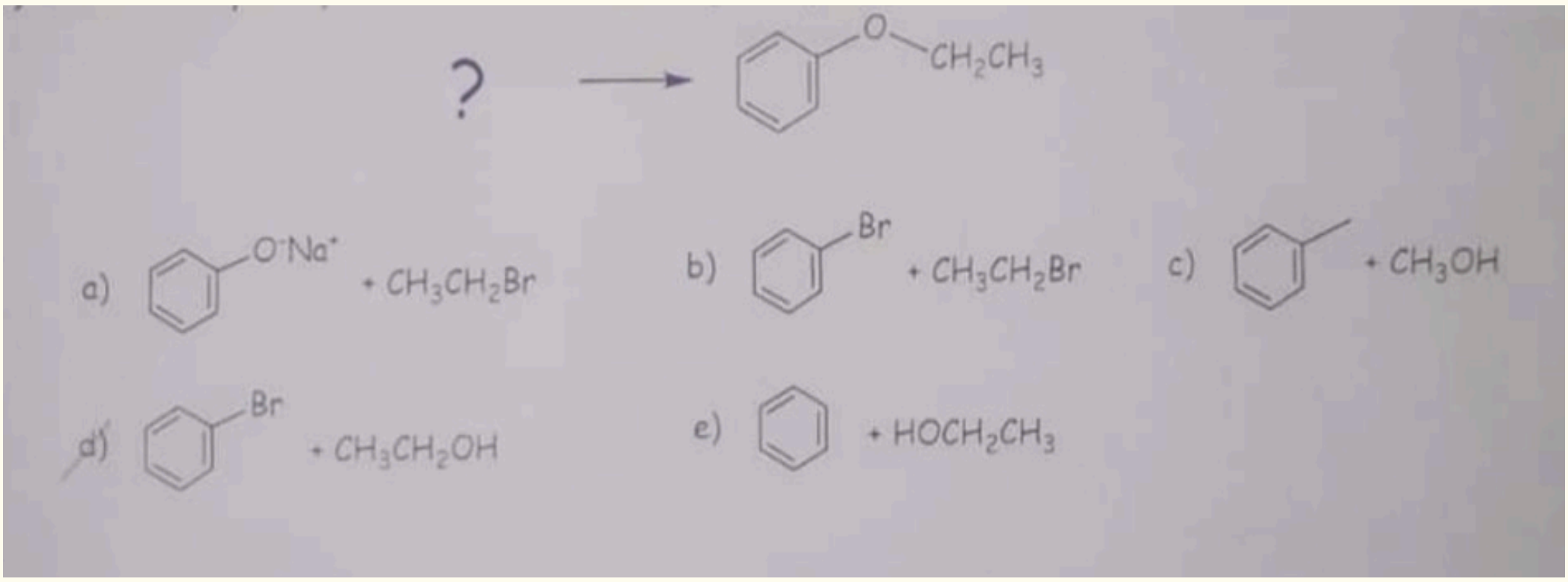


a)1-hydroxybutyl ether
b)1-hydroxydiethyl ether
c)2-ethylethanol ether
d)2-ethoxyethanol
e)2-Propoxyethanol

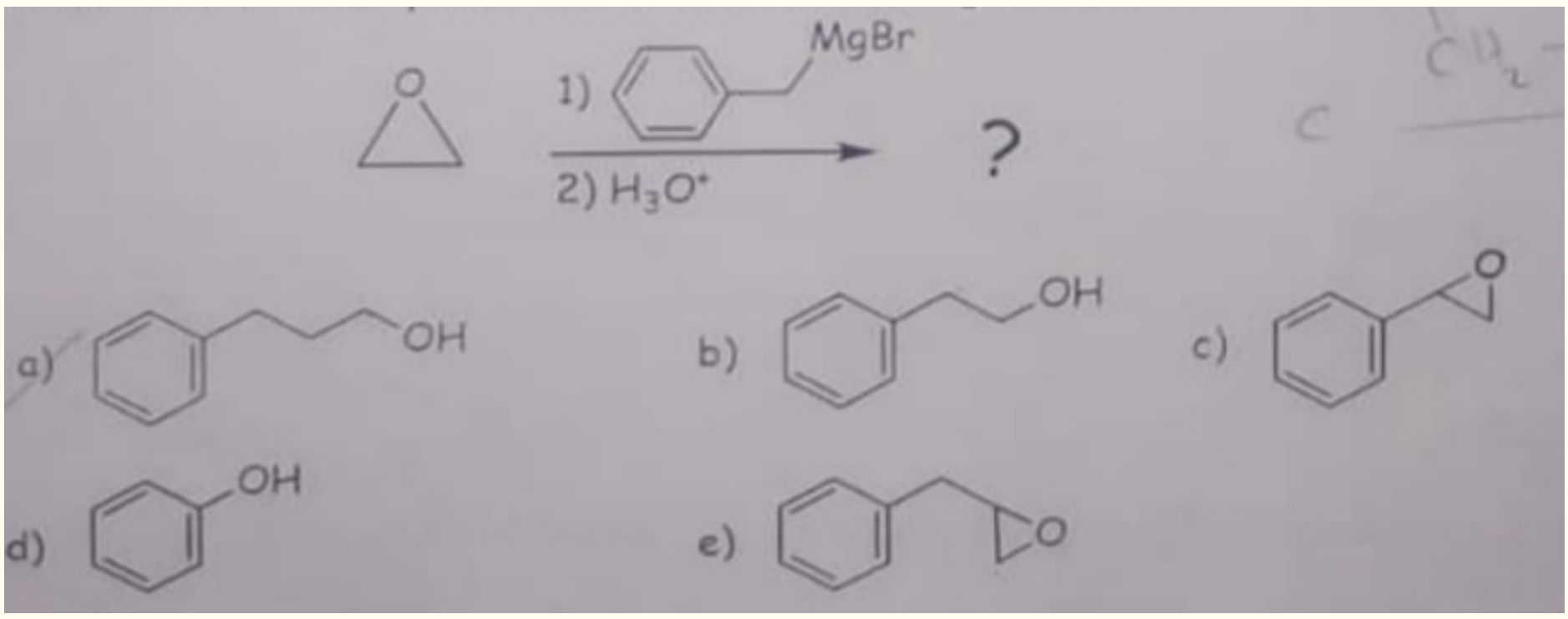
5) How could you perform the following reaction?



6) How could you synthesize the following compound using Williamson synthesis?



7) What will be the product of the following reaction?



8) What are the major products of the following reaction?
(Cyclohexyl ethyl ether+one mole HI)

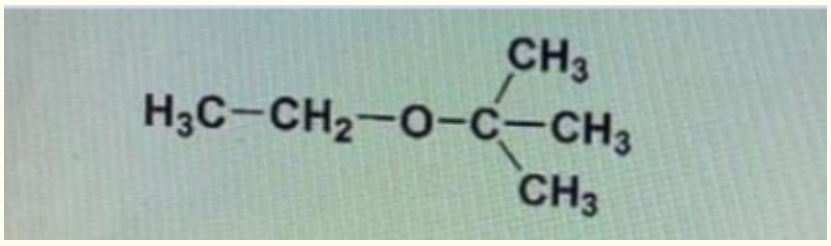
a)Cyclohexanol+CH3CH2I
b)Cyclohexanol+ethanol
c)CH3CH2OH+iodocyclohexane
d)Iodocyclohexane+CH3CH2I
e)Cyclohexene+CH3CH2I

9) What starting materials are best to use for Williamson synthesis of ethyl isobutyl ether?

a)isobutyl-ONa+CH3CH2OH
b)isobutane+CH3CH2Br
c)isobutyl-ONa+CH3CH2Br
d)CH3CH2ONa+isobutyl bromide
e)isobutanol+ethanol

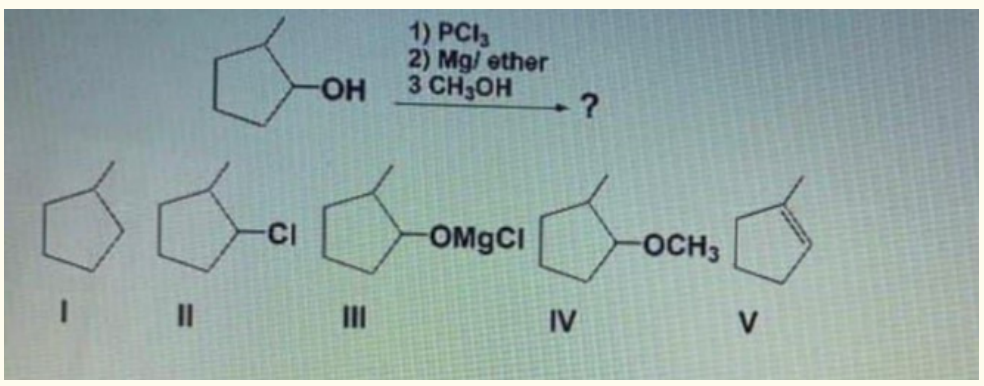
10) What products are formed from reaction of one mole HCl with this ether?

Hint: Cl- is a weak nucleophile



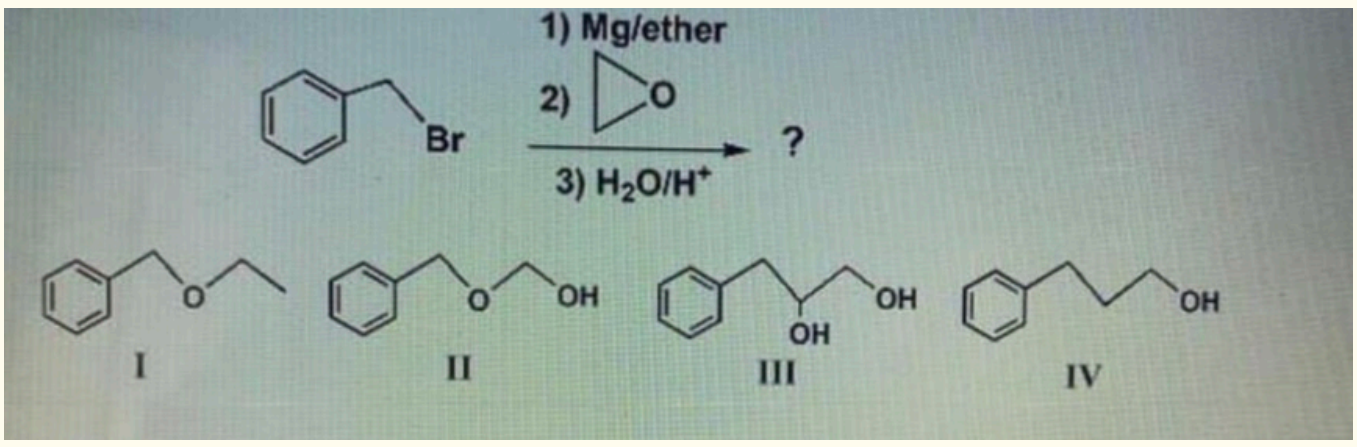
a)tert-butyl chloride+chloroethane
b)tert-butyl chloride+ethanol
c)tert-butyl alcohol+chloroethane
d)tert-butyl alcohol+ethanol
e)tert-butyl alcohol+tert-butyl chloride

11) What is the product of the following reaction?



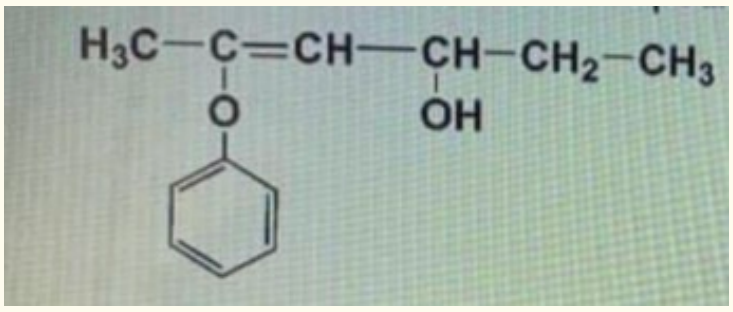
a)V
b)IV
c)II
d)I
e)III

12) Which product is obtained from the following reaction?



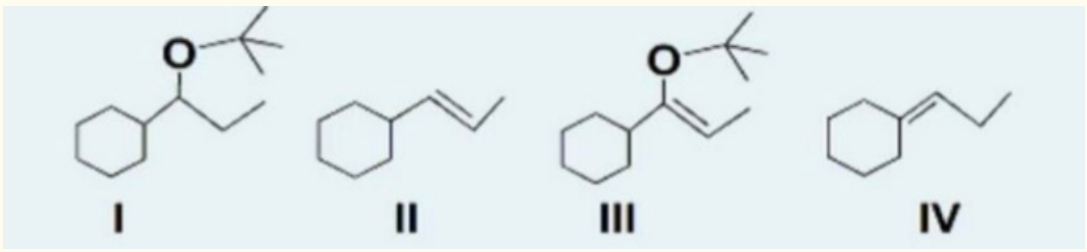
a)III
b)I
c)II
d)I and II
e)IV

13) What is the correct name of this compound?



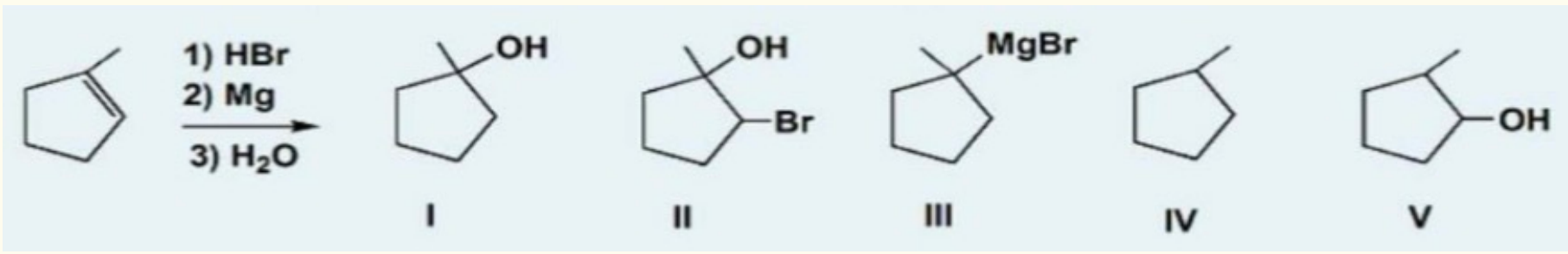
a)5-phenoxy-4-hexen-3-ol
b)2-phenoxy-2-hexen-4-ol
c)4-hexen-3-ol phenyl ether
d)4-hydroxy-2-phenoxy-2-hexene

14) Which is the major product of the following reaction?



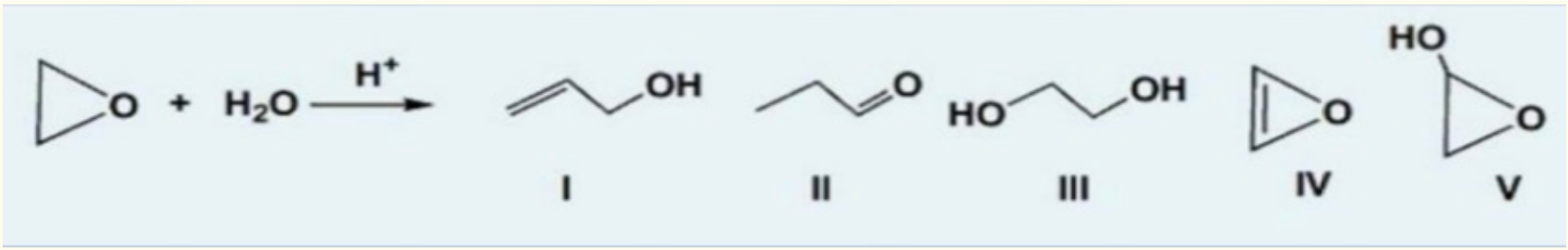
a)IV
b)II
c)III
d)I+III
e)I

15) What is the product of the following reaction?



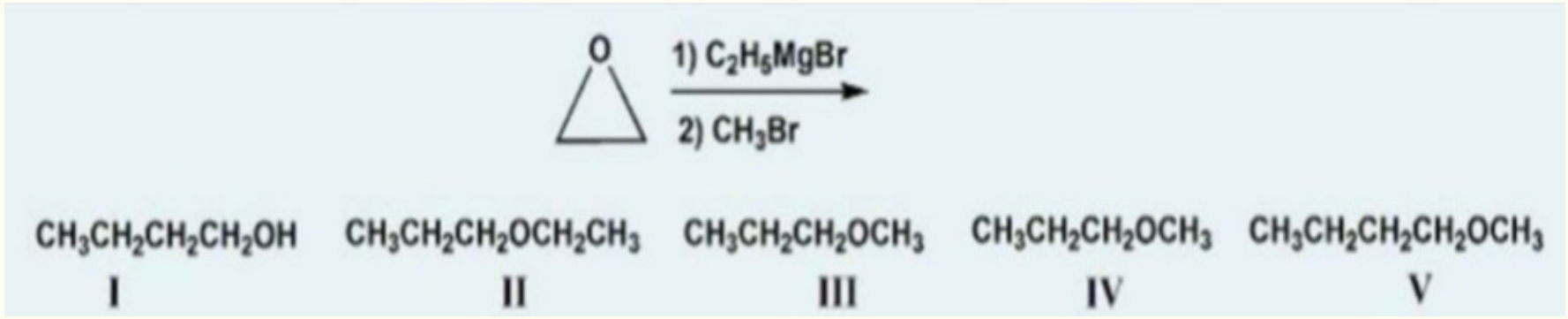
a)IV
b)I
c)III
d)II
e)V

16) What is the product of the following reaction?



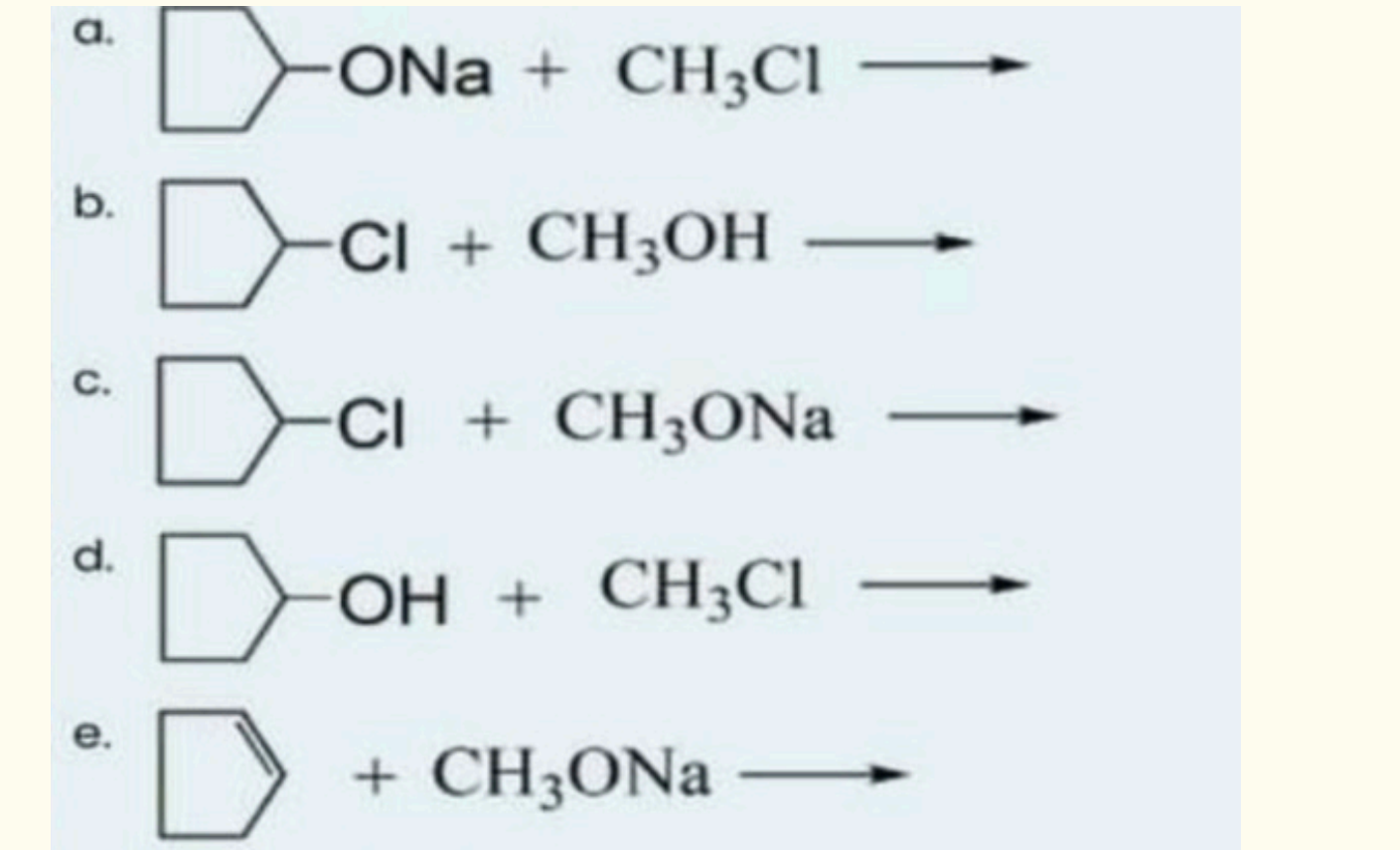
a)IV
b)II
c)I
d)V
e)III

17) What is the major product of the following reaction?



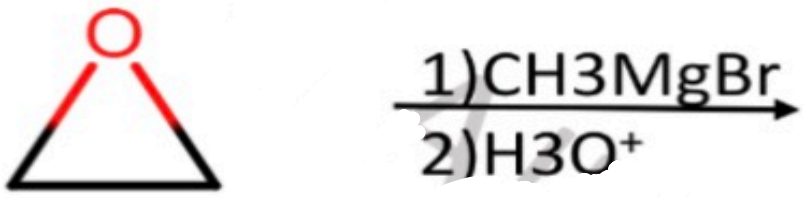
a)V
b)III
c)II
d)IV
e)I

18) What are the products of the following reaction?

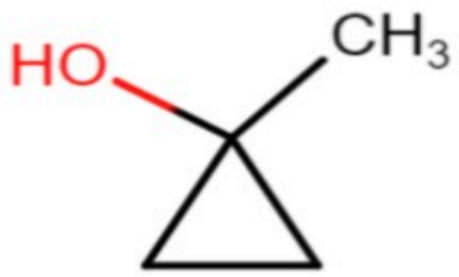


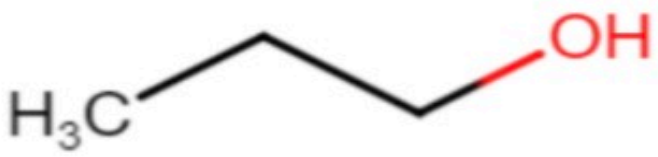
19) Which is the best Williamson synthesis of cyclopentyl methyl ether?

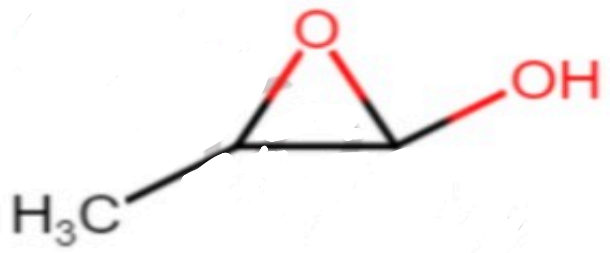
20) What is the product of this reaction?

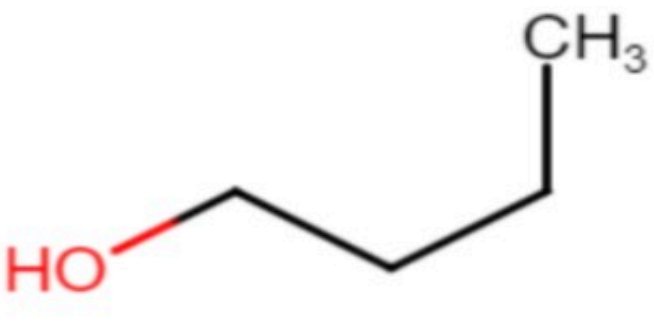


A) 

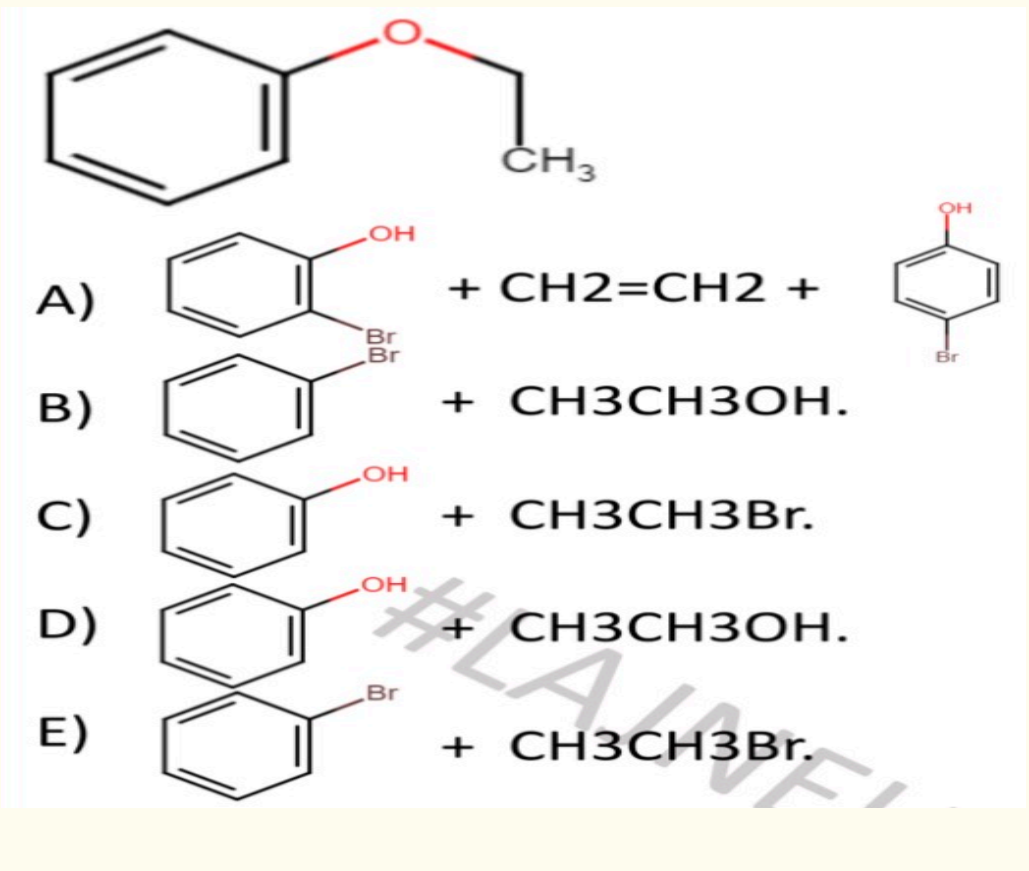
B) 

C) 

D) 

E) 

21) What are the products of the following reaction?



22) Which reagent would achieve the following transformation?

A) NaOH then H2O.

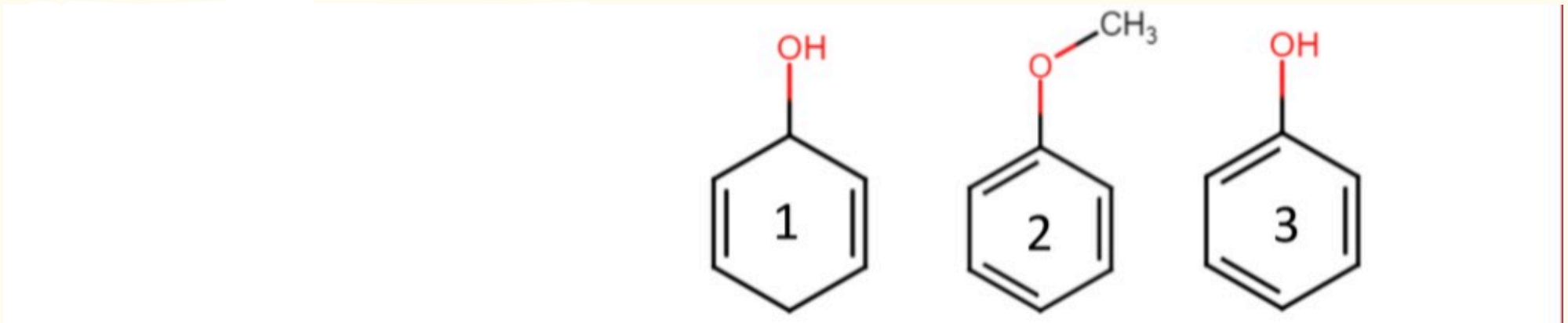
B) Ch3CO2H.

C) CH3OH/H+.

D) Na then CH3CL.

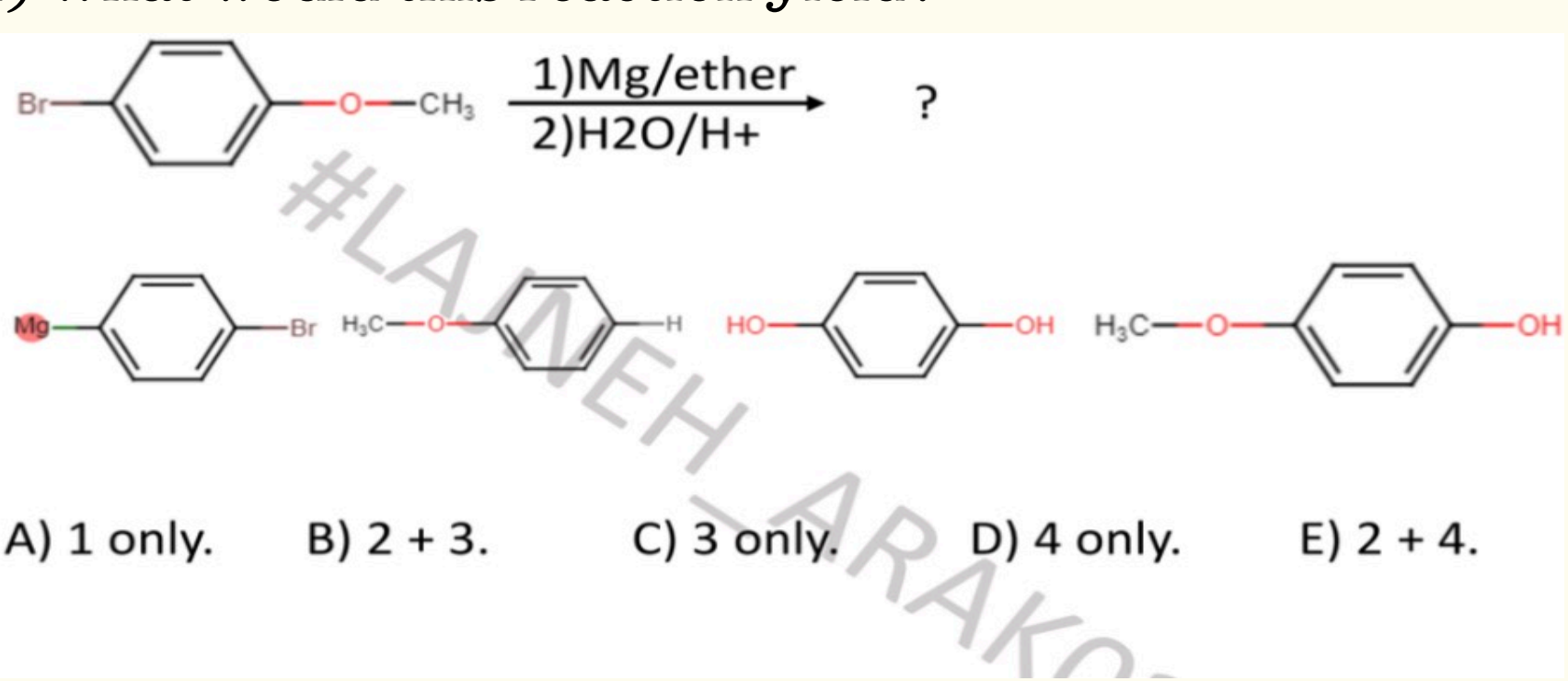
E) H2O/ H+.

23) Which compound(s) would not react with sodium metal (Na) or with sodium hydroxide?



A) 1 only. B)3 only. C)2 only. D)1 and 2. E)2 and 3.

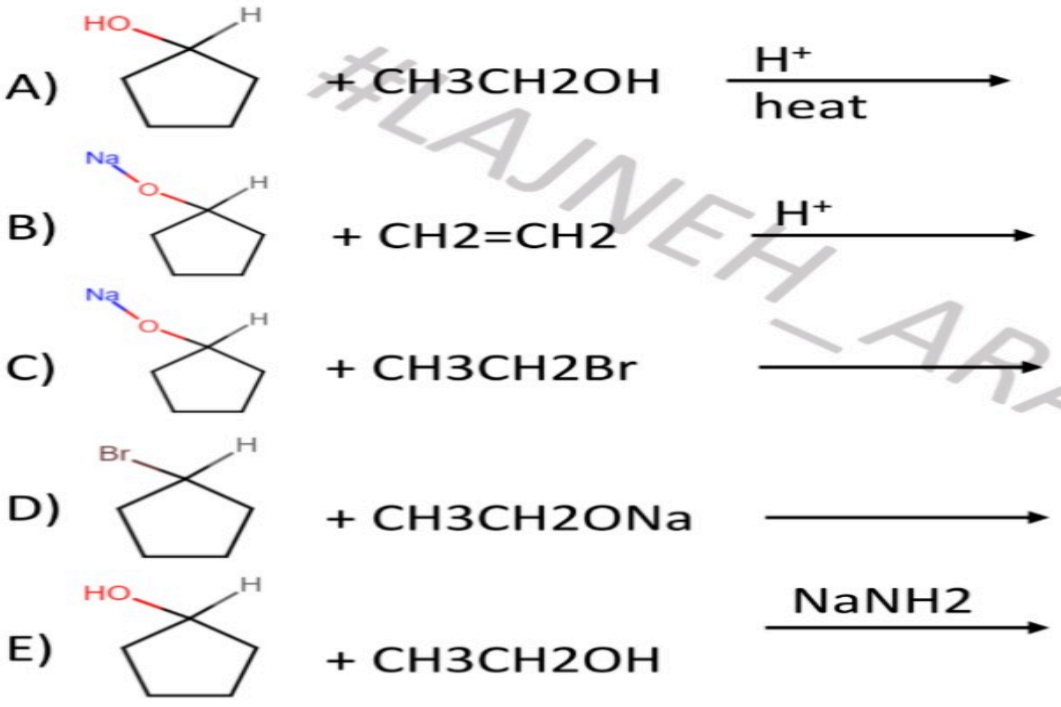
24) What would this reaction yield?



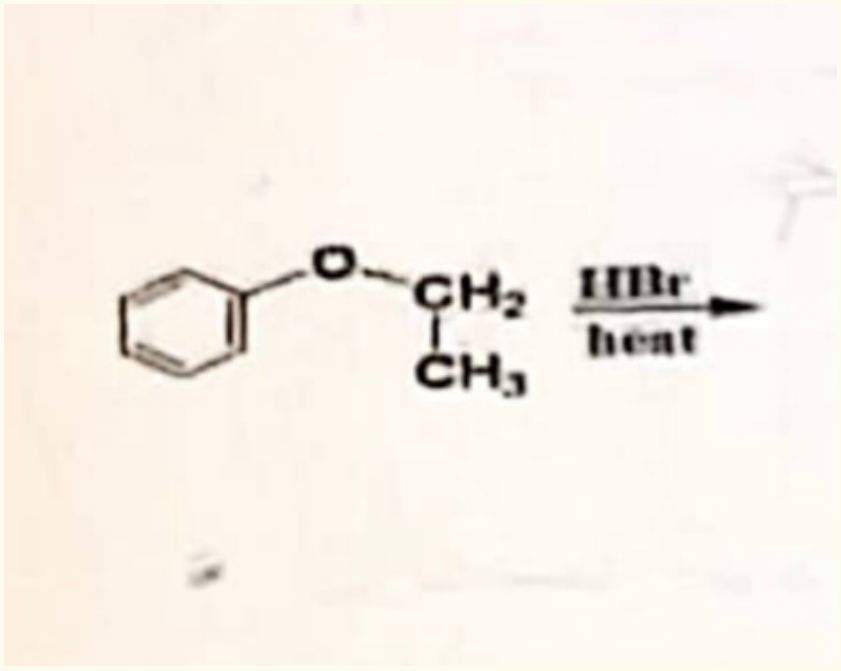
A) 1 only. B) 2 + 3. C) 3 only. D) 4 only. E) 2 + 4.

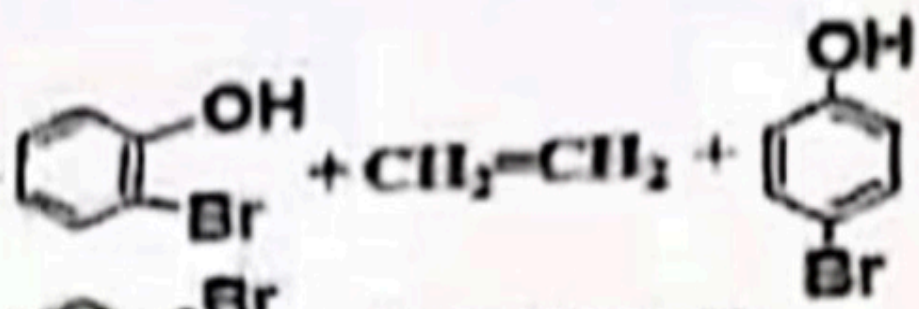
25) Which is the best synthesis of cyclopentyl ethyl ether?

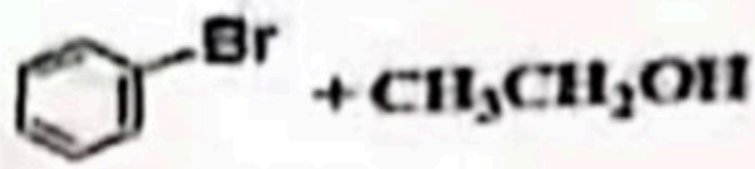
19.Which is the best synthesis of cyclopentyl ethyl ether ?

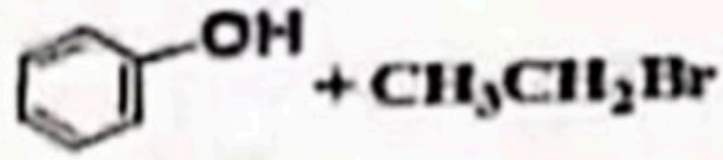


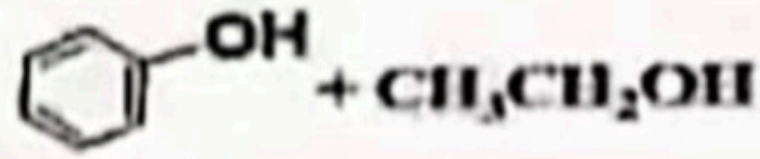
26) What are the products of the following reaction?

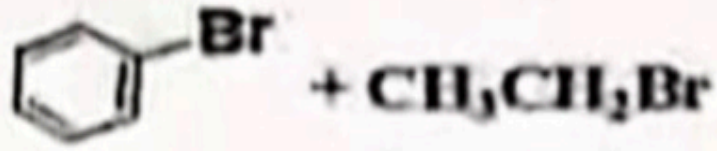


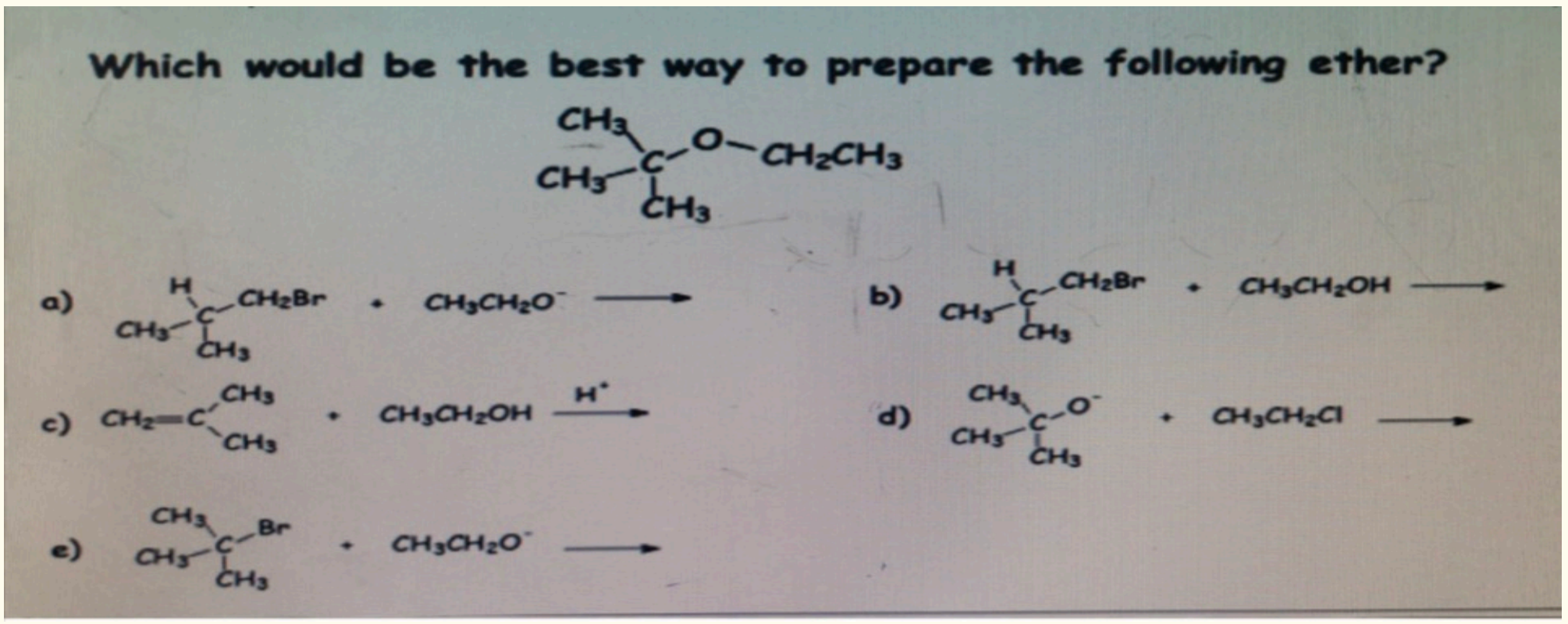
a) 

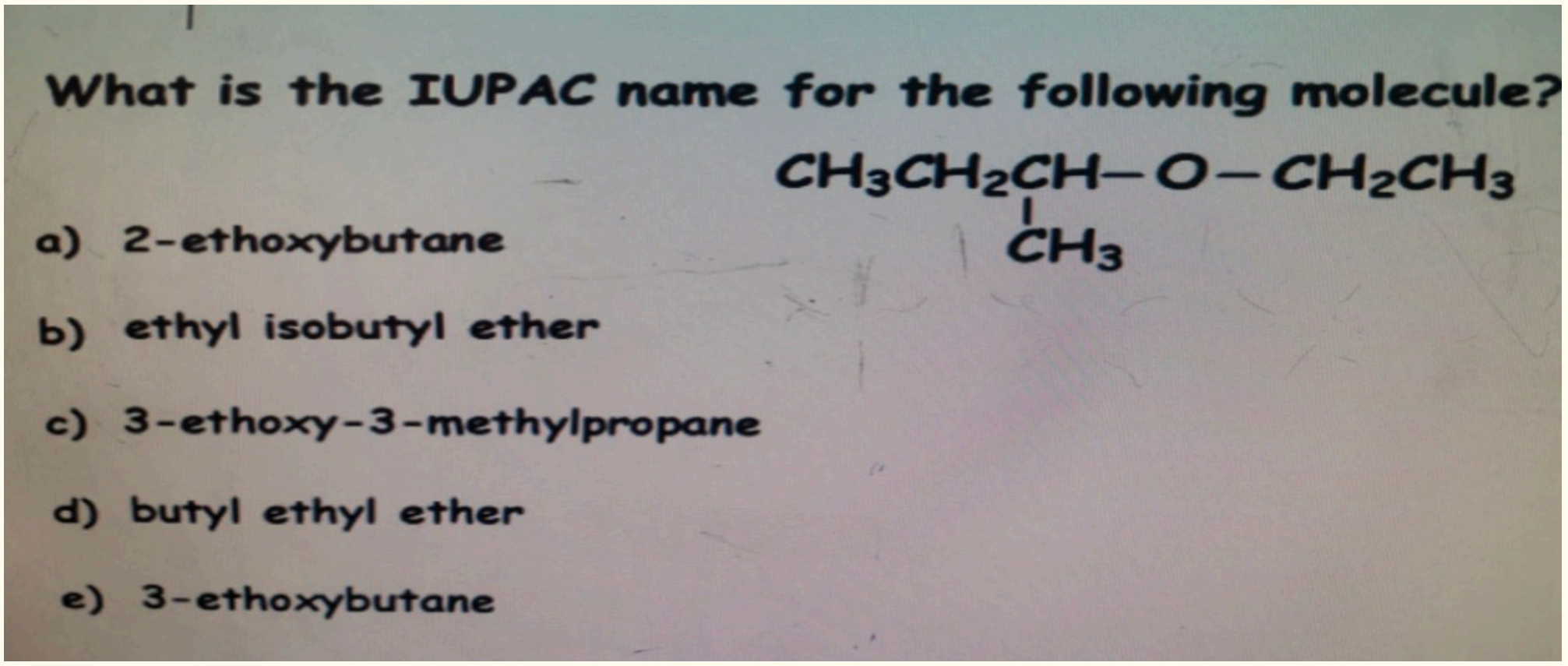
b) 

c) 

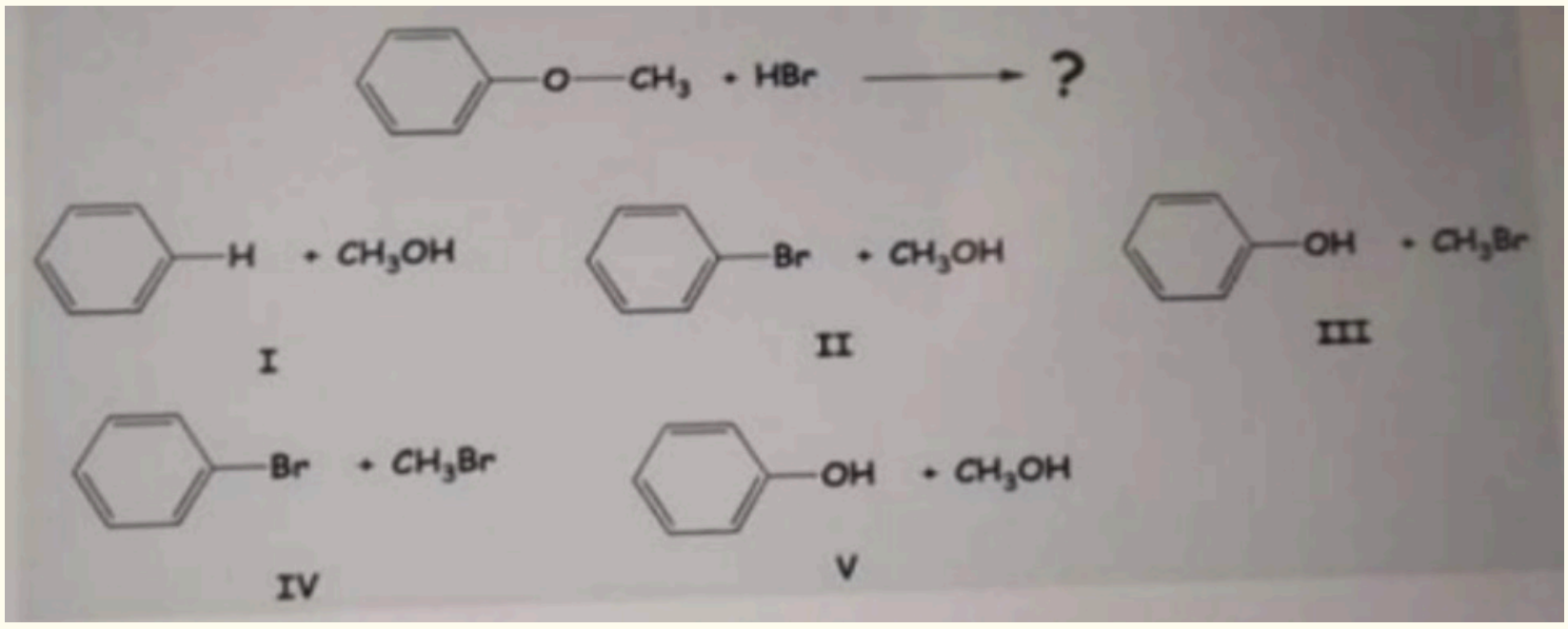
d) 

e) 

27) 

28) 

29) What are the products of the following reaction?



a)I
b)IV
c)II
d)III

30) The best Williamson synthesis of sec-butyl methyl ether involves the following reaction:

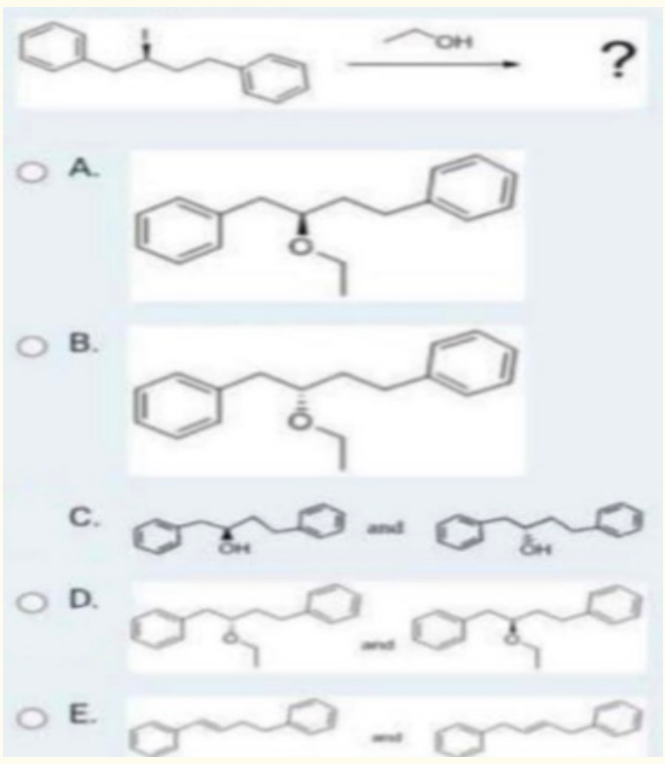
a)2-bromobutane+bromomethane in basic media
b)Sodium sec-butoxide+methyl bromide
c)2-butanol+methanol in acidic media
d)1-butene+methanol in acidic media
e)2-bromobutane+ sodium methoxide

31) The best Williamson synthesis of isopropyl methyl ether involves the following reaction:

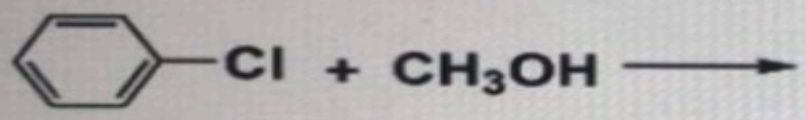
a)2-bromopropene+bromomethane in basic media
b)Propene+methanol in acidic media
c)isopropyl bromide+sodium methoxide
d)Sodium isopropoxide+methyl bromide
e)2-propanol+ methanol in acidic media

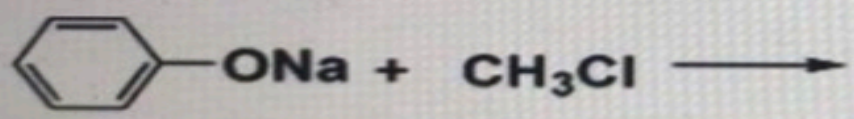
32) What is the major product of the following reaction?

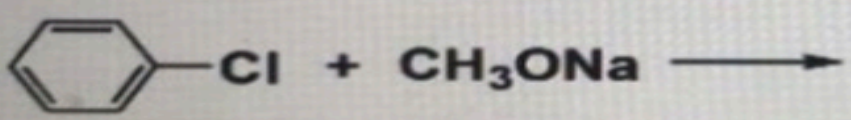
a)A
b)B
c)C
d)D
e)E

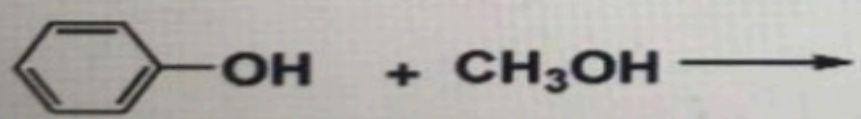


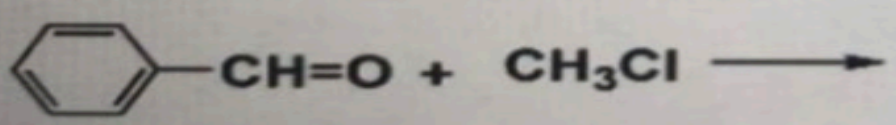
33) Which is the best Williamson synthesis of methyl phenyl ether?

a. 

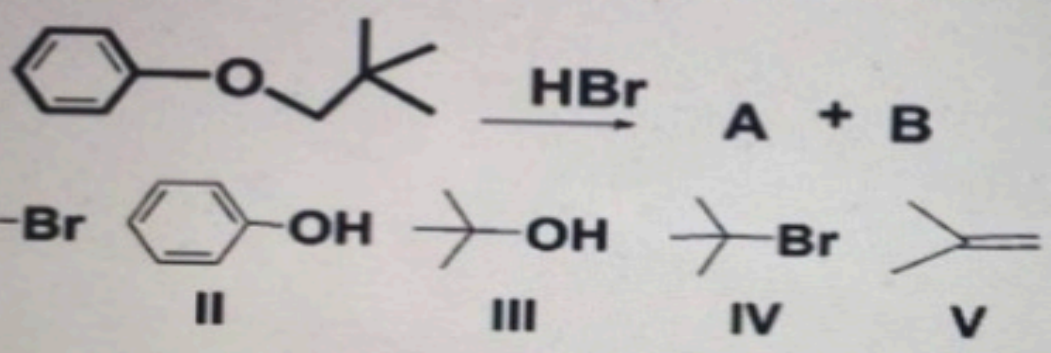
b. 

c. 

d. 

e. 

34) What are the two products of the following reaction?



a. I + III

b. I + V

c. II + III

d. I + IV

e. II + IV

1	c
2	d
3	c
4	d
5	e
6	a
7	a
8	a
9	d
10	c
11	b
12	e
13	a
14	a
15	a
16	e
17	a
18	b
19	a
20	c
21	c
22	c

23	c
24	c
25	c
26	c
27	c
28	a
29	d
30	b
31	d
32	d
33	b
34	e