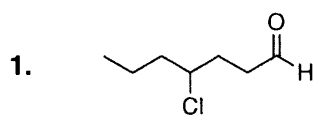
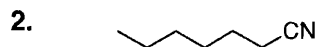


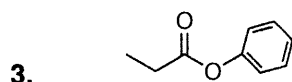
Questions 1-8: Which is the correct name/ structure for the following structure / name?



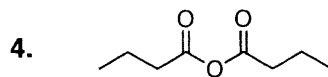
- a. 4-chloroheptanal
- b. 4-chlorohexanal
- c. 4-chloro-2-heptanal
- d. 4-chloropentanal



- a. heptanenitrile
- b. hexanenitrile
- c. octanenitrile
- d. pentanenitrile

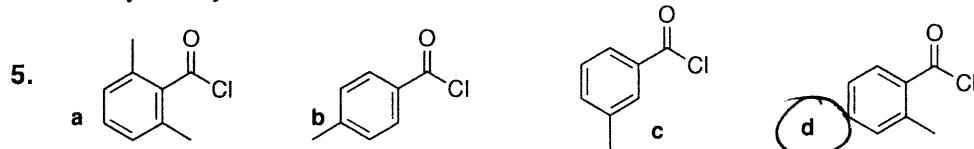


- a. Phenyl propanoate
- b. Benzyl propanoate
- c. Phenyl butanoate
- d. Benzyl butanoate

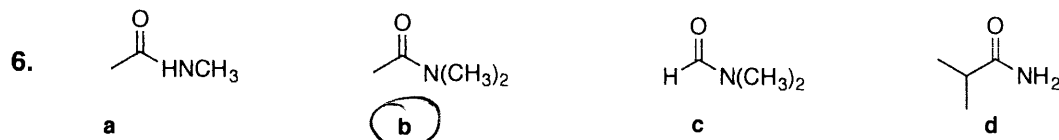


- a. butanoic anhydride
- b. pentanoic anhydride
- c. butanoic pentanoic anhydride
- d. propanoic anhydride

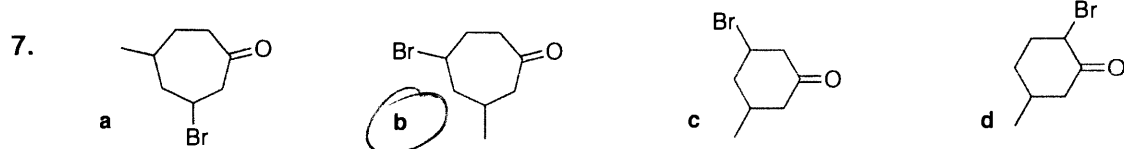
2-methylbenzoyl chloride



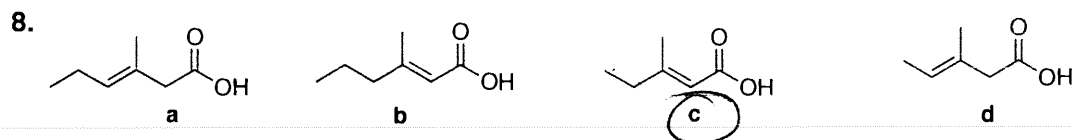
N,N-dimethylacetamide



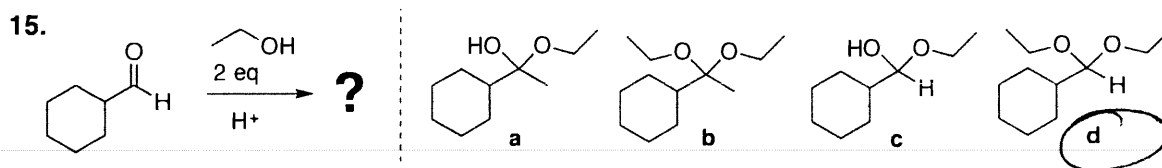
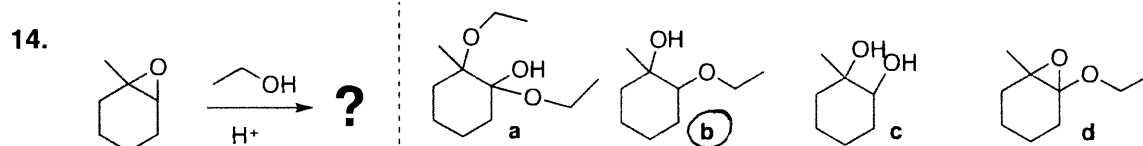
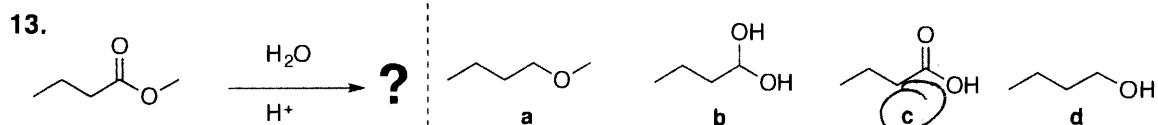
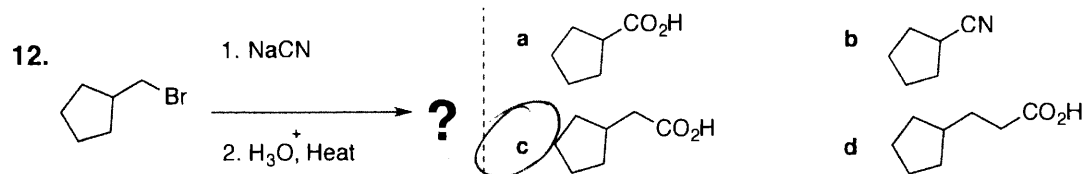
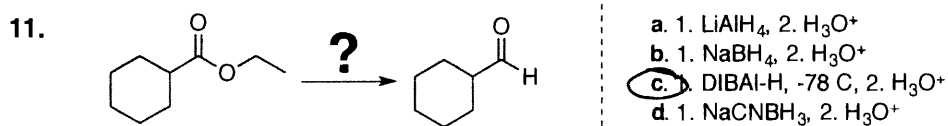
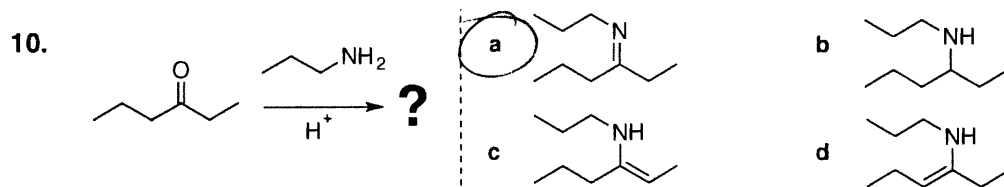
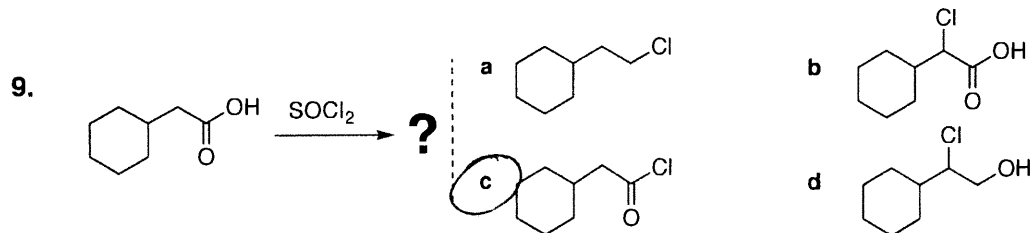
5-bromo-3-methylcycloheptanone

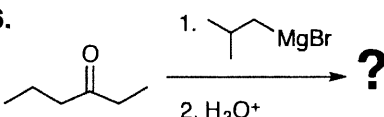
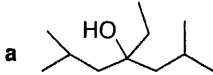
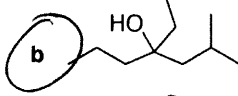
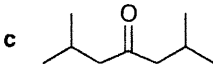
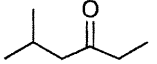
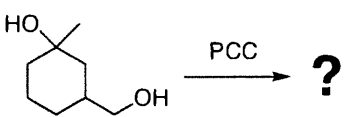
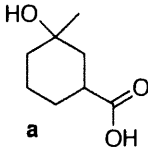
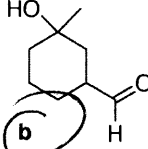
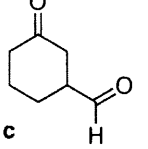
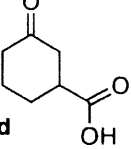
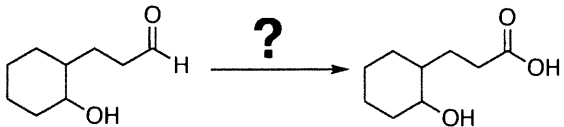
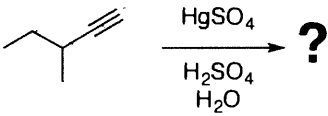
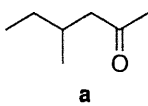
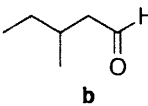
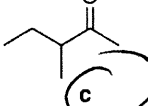
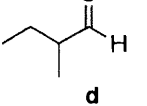
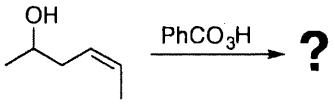
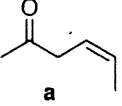
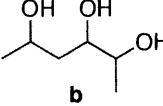
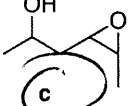
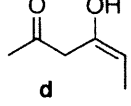
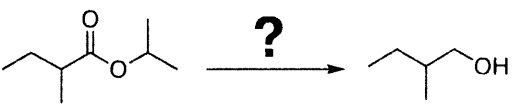
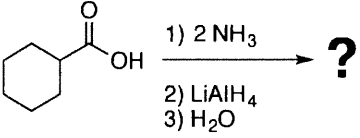
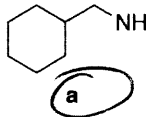
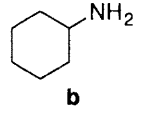
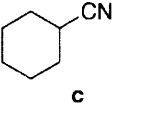
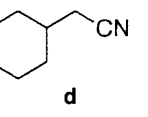


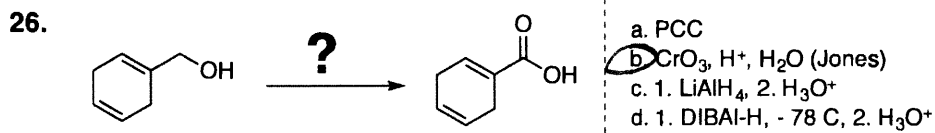
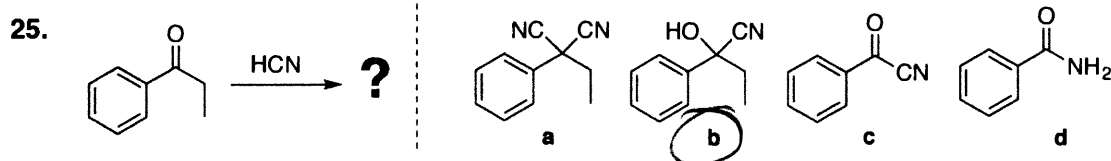
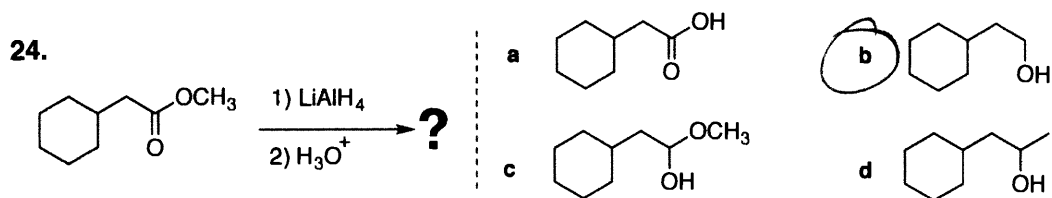
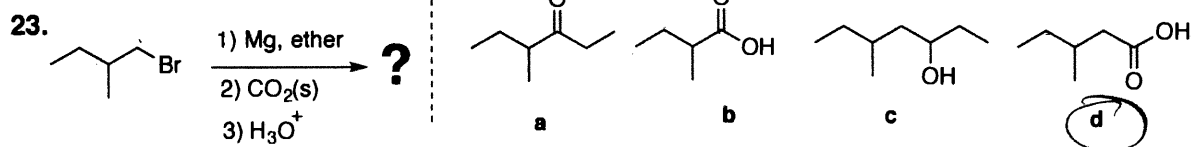
3-methyl-2-pentenoic acid



Questions 9-33: What is the correct product/ conditions for the following reactions?



16.  ?
- a.  b.  c.  d. 
-
17.  ?
- a.  b.  c.  d. 
-
18.  ?
- a. $\text{CrO}_3, \text{H}^+, \text{H}_2\text{O}$ (Jones)
b. PCC
c. $\text{Ag}_2\text{O}, \text{NH}_3, \text{H}_2\text{O}$ (Tollens)
d. DIBAL-H
-
19.  ?
- a.  b.  c.  d. 
-
20.  ?
- a.  b.  c.  d. 
-
21.  ?
- a. $\text{CrO}_3, \text{H}^+, \text{H}_2\text{O}$
b. PCC
c. 1. LiAlH_4 , 2. H_3O^+
d. 1. DIBAL-H, -78 C, 2. H_3O^+
-
22.  ?
- a.  b.  c.  d. 



Use Figure 1 to answer questions 27 thru 32

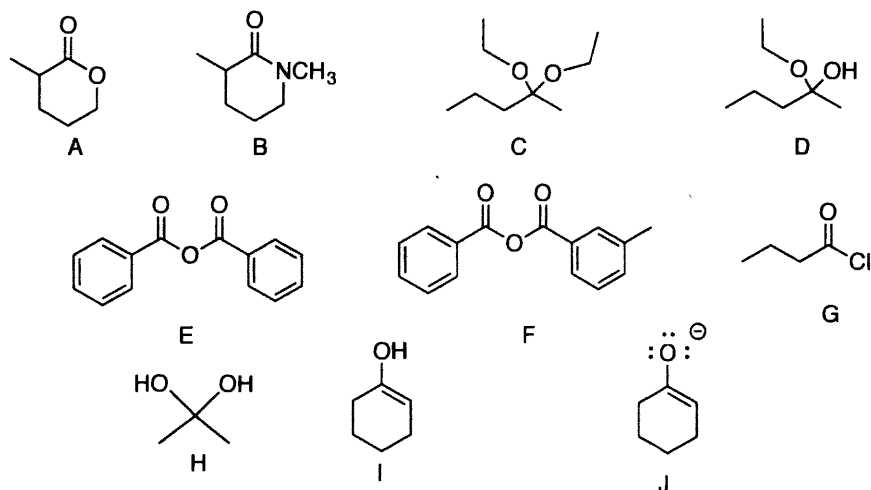


Figure 1

27. Which of the structures in **Figure 1** represents a hydrate of a ketone? *H*

28. Which of the structures in **Figure 1** represents a **Lactone**? *A*

29. Which of the structures in **Figure 1** represents a **Lactam**? *B*

30. Which of the structures in **Figure 1** represents an **enol**? *I*

31. Which of the structures in **Figure 1** represents an **acetal**? *C*

32. Which of the structures in **Figure 1** represents a hydrate of a **hemiacetal**? *D*

