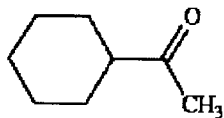


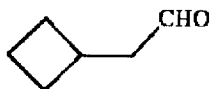
Answer Key

Testname: REVIEW QUESTIONS FOR CHAPTER 9.TST

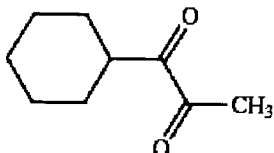
14)



15)

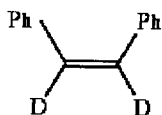


16)



17)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CO}_2\text{H} + \text{CH}_3\text{CH}_2\text{CO}_2\text{H}$

18)



19) 1.  $\text{NaNH}_2$

2.  $\text{CH}_3\text{CH}_2\text{Br}$

3.  $\text{Na}, \text{NH}_3$

20) 1.  $\text{H}_2$ , Lindlar's catalyst

2.  $\text{OsO}_4, \text{H}_2\text{O}_2$  or cold, dilute  $\text{KMnO}_4, -\text{OH}$

or

1.  $\text{Na}, \text{NH}_3$

2.  $\text{PhCO}_3\text{H}$

3.  $\text{H}_3\text{O}^+$  or  $-\text{OH}$

21) 1.  $\text{NaNH}_2$

2. ethylene oxide (oxirane)

3.  $\text{H}_2$ , Lindlar's catalyst

22) 1.  $\text{NaNH}_2$

2.  $\text{CH}_3\text{I}$

3.  $\text{NaNH}_2$

4.  $\text{CH}_3\text{I}$

5.  $\text{Na}, \text{NH}_3$

6.  $\text{PhCO}_3\text{H}$

23) 1.  $\text{NaNH}_2$

2.  $\text{CH}_3\text{CH}_2\text{Br}$

3.  $\text{NaNH}_2$

4. cyclopentanone

24) 1.  $\text{NaNH}_2$

2. cyclohexanone

3.  $\text{H}_2$ , Pt