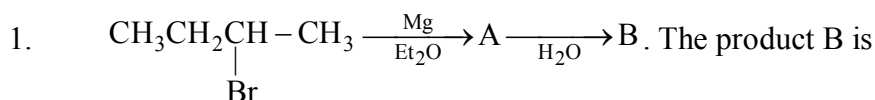
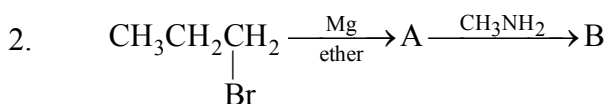


Reagent (2)

Grignard Reagents

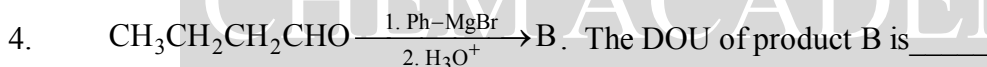
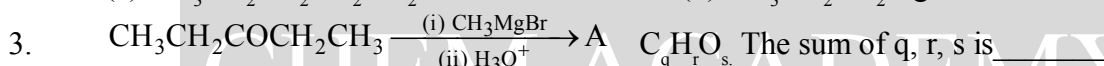


- (a) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$ (b) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$ (c) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$ (d) $\text{CH}_3\text{CH}_2\underset{\text{OH}}{\text{CH}}-\text{CH}_3$

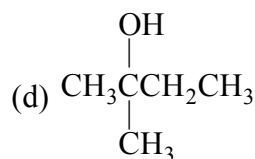
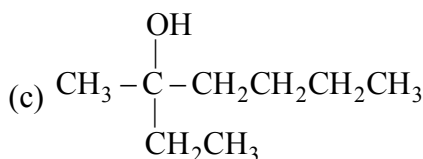
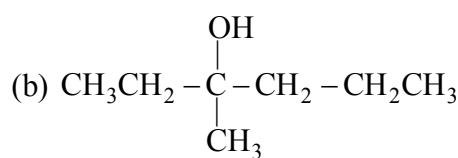
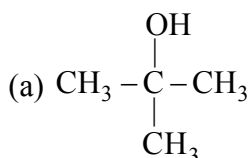


The product B is

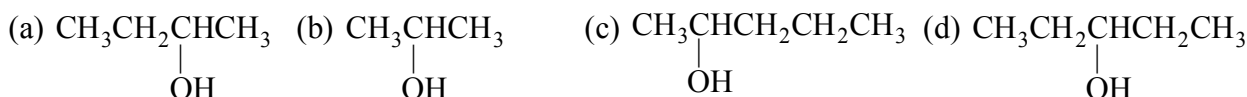
- (a) $\text{CH}_3\text{CH}_2\text{CH}_3$ (b) $\text{CH}_3\text{CH}_2\text{CH}_2\text{NHCH}_3$
(c) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{NH}_2$ (d) $\text{CH}_3\text{CH}_2\text{CH}_2\text{MgBr}$



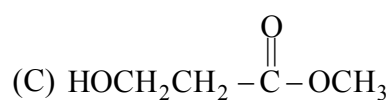
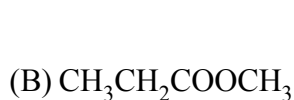
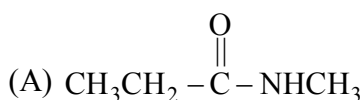
5. Which of the following tertiary alcohols can be prepared from the reaction of an ester with excess grignard reagent?



6. Which of the following secondary alcohols can be prepared from the reaction of methyl formate with excess grignard reagent



7. Which of the following compounds will not undergo a nucleophilic addition reaction with a grignard reagent?



(a) A

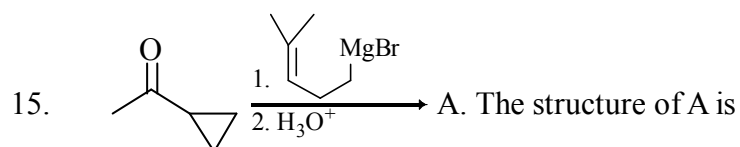
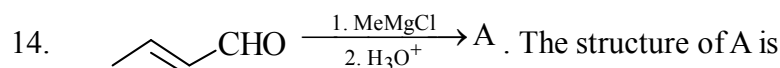
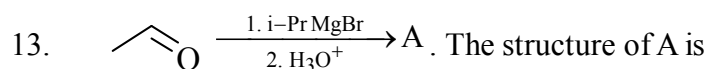
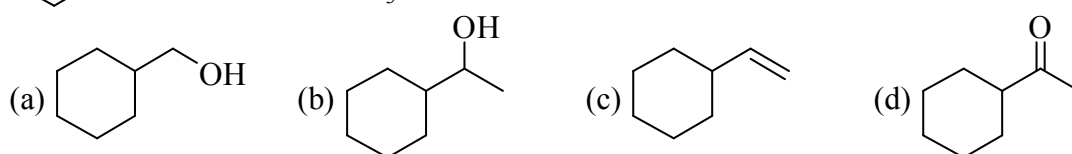
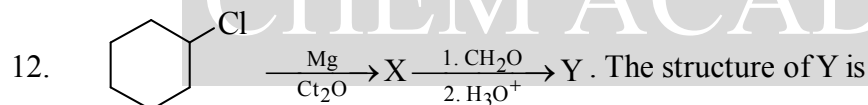
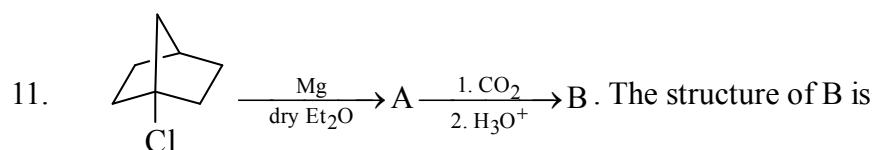
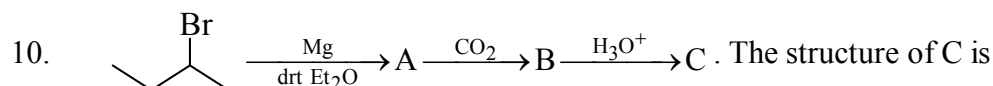
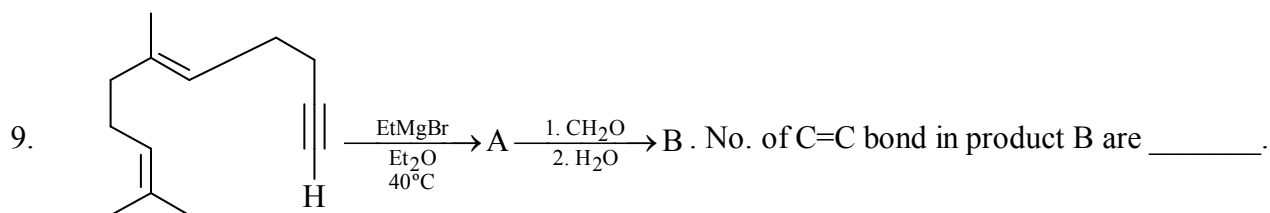
(b) B

(c) C

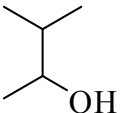
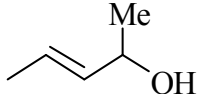
(d) D

8. Compound A and D do not give positive tollens tests however, compound C does,
 4-Bromobutanal $\xrightarrow{\text{HOCH}_2\text{CH}_2\text{OH, HA}}$ A $\xrightarrow{\text{Mg, Et}_2\text{O}}$ B $\xrightarrow[2. \text{H}_3\text{O}^+, \text{H}_2\text{O}]{1. \text{CH}_3\text{CHO}}$ C $\xrightarrow[\text{HA}]{\text{CH}_3\text{OH}}$ D
 $\text{C}_7\text{H}_n\text{O}_m$

The value of n & m in $\text{C}_7\text{H}_n\text{O}_m$ are _____



ANSWER KEY

1. a 2. a 3. 21 4. 4 5. a,d 6. b,d 7. a,c,d
 8. 14,2 9. 2 10. a 11. a 12. a 13. 
 14.  15. 