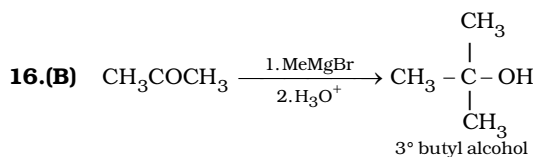


Daily Tutorial Sheet-2

Level-1

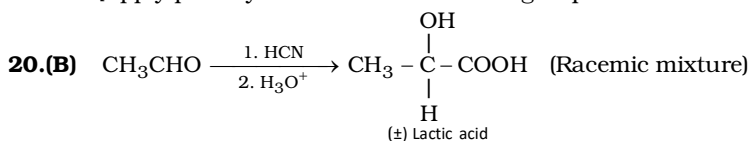


17.(B) Facts to remember.

18.(B) The end product, $\text{C}_5\text{H}_{12}\text{O}$ is clearly an alcohol ($\text{C}_n\text{H}_{2n+2}\text{O}$). So A has to be a 3-carbon atom aldehyde or ketone.

19.(C) $\text{CH}_3\text{CHO} > \text{CH}_3\text{COCH}_3 > \text{PhCOPh}$
(+M)

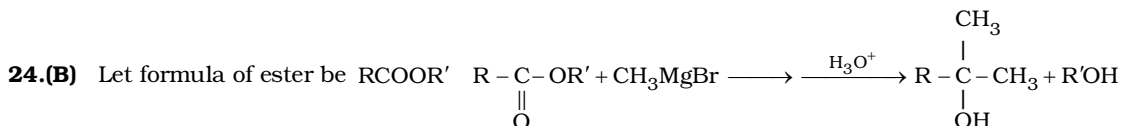
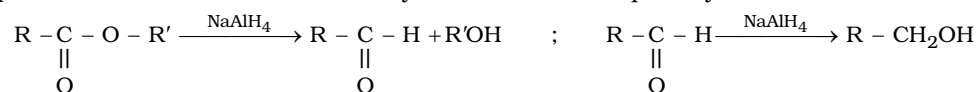
[Apply polarity factor : +I effect of CH_3 group and +M effect of phenyl group]



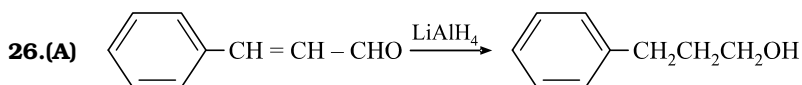
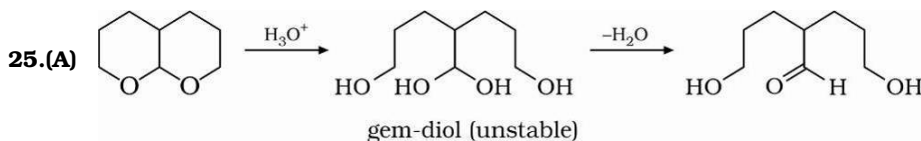
21.(D) Methyl ketones & Methylated 2° alcohols give iodoform with NaOH & I_2 .

22.(ABC) (D) is incorrect as Oppenauer oxidation is for 2° alcohol to ketones.

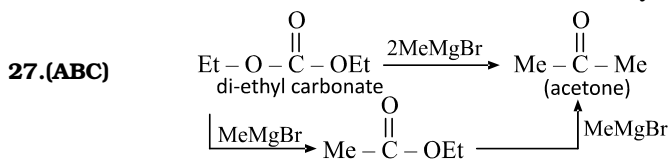
23.(A) NaAlH_4 can reduce esters, first to an aldehyde and further to a primary alcohol as follows :



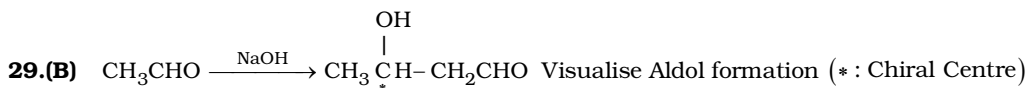
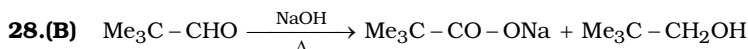
As only isopropyl alcohol is the sole product after hydrolysis, so $\text{R} = \text{H}$ and $\text{R}' = (\text{CH}_3)_2\text{CH} -$



Note that LiAlH_4 usually does not reduce $-\text{C}=\text{C}-$ bond ; but when it is in conjugation with phenyl ring, it is also reduced. If we use NaBH_4 here, then only carbonyl group is reduced.



Observe that A, B, C are true for acetone



Note that if we heat the given aldol, it will give $\text{CH}_3\text{CH}=\text{CHCHO}$ (Crotonaldehyde) which shows Geometrical isomerism.

