Daily Tutorial Sheet-1	Level-1

1.(B) Denatured alcohol = rectified spirit + Naphtha + methanol

2.(A) Anti-Markovnikov's rule

3.(D) $C_2H_5CHO \xrightarrow[2.\ H_3O^+]{1.\ RMgBr} C_2H_5\overset{\overset{OH}{|}}{C}H-R$ (2°alcohol)

$$H-COOEt \xrightarrow{RMgBr} H-\overset{\overset{O}{||}}{C}-R \xrightarrow[2.\ H_3O^+]{1.\ RMgBr} R_2CHOH\,(2°\text{alcohol})$$

4.(C) Acid catalysed hydration follows Markovnikov's rule and that is formed from most stable carbocations. The stability of carbocations follows : $3° > 2° >> 1°$

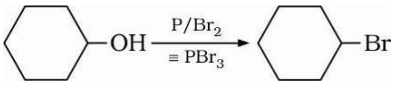
5.(B) Starch $\xrightarrow{\text{Diastase}}$ Maltose $\xrightarrow{\text{Maltase}}$ Glucose $\xrightarrow{\text{Zymase}}$ Ethyl alcohol

6.(D) $CH_3MgI + HCHO \longrightarrow \xrightarrow{H_3O^+} CH_3CH_2OH$

7.(D) Glucose/fructose $\xrightarrow{\text{Zymase}}$ Ethyl alcohol + CO_2

8.(B) $LiAlH_4$/ether does not reduce $> C = C <$ bond

9.(A) $\underset{\text{Water gas}}{CO + H_2} \longrightarrow CH_3OH$

10.(B) 

(1°/2° alcohol give bromide not 3° alcohol)

11.(B) 3° alcohols react fastest with Lucas Reagent. ($ZnCl_2$ / HCl)

12.(A) $RCH_2CH_2OH \xrightarrow{PBr_3} RCH_2CH_2Br \xrightarrow{KCN} RCH_2CH_2CN \xrightarrow{H_3O^+} RCH_2CH_2COOH$

13.(C) C_2H_5OH : H – bonding and higher Molecular mass than CH_3OH

14.(A) $ZnCl_2$ acts a Lewis acid which coordinates with lone pair over 'O'-atom.

15.(D) HI > HBr > HCl > HF, HI is strongest acid and I^- is strongest nucleophile.