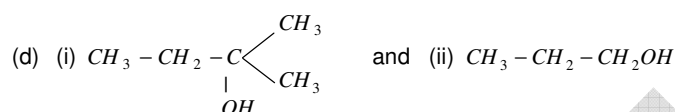
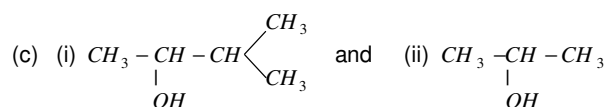
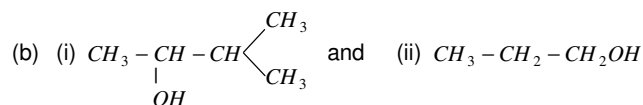
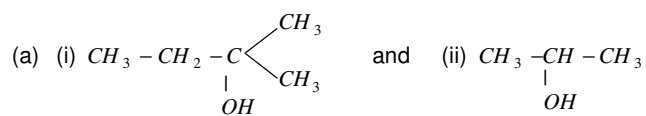
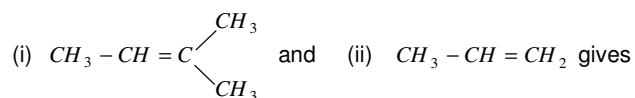
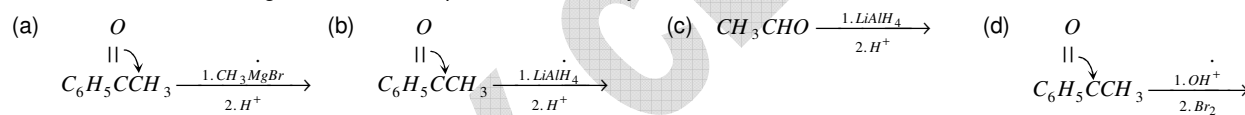


**Hydroxy Compounds & Ethers Assignment**

1. Action of water in the presence of sulphuric acid with the following alkenes



2. Which one of the following reactions would produce secondary alcohol



3. Propene,  $CH_3 - CH = CH_2$  can be converted to 1-propanol by oxidation. Which set of reagents among the following is ideal to effect the conversion

- (a) Alkaline  $KMnO_4$  (b)  $B_2H_6$  and alkaline  $H_2O_2$   
 (c)  $O_3 / Zn$  dust (d)  $OsO_4 / CH_4, Cl_2$

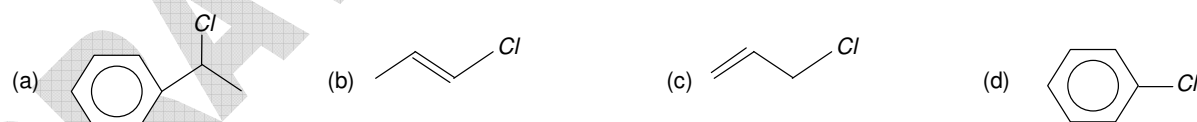
4. Chlorination of toluene in the presence of light and heat followed by treatment with aqueous  $NaOH$  gives

- (a) *o*-cresol (b) *p*-cresol (c) 2, 4-dihydroxy toluene (d) Benzyl alcohol

5. The compound that will react most readily with  $NaOH$  to form methanol is

- (a)  $(CH_3)_4N^+I^-$  (b)  $CH_3OCH_3$  (c)  $(CH_3)_3S^+I^-$  (d)  $(CH_3)_3Cl$

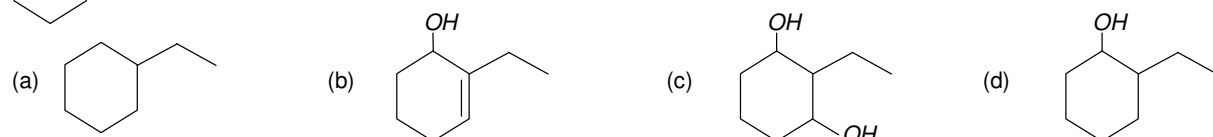
6. Which is hydrolysed at the fastest rate



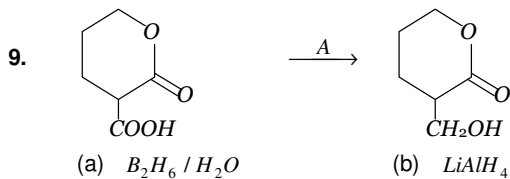
7.  $HBO$ , oxymercuration-demercuration and acid catalysed hydration will give same product in



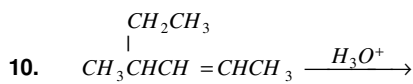
8.   $\xrightarrow{SeO_2} A$ , A is



GRAVITY CLASSES



A is



Major product of this reaction

- (a) Is optical isomer (b) Gives white turbidity with  $HBr$  immediately  
(c) Is dehydrated easily (d) All correct

11. Consider the following methods

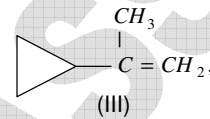
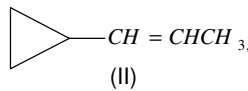
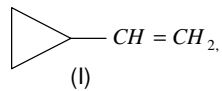
I : Hydration of olefins

III : Reduction of carbonyl compounds

Which of these can be used to prepare alcohols

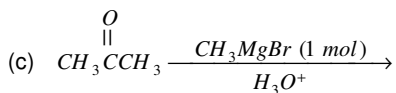
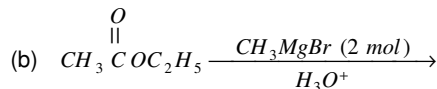
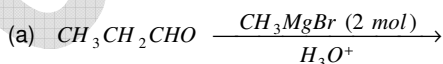
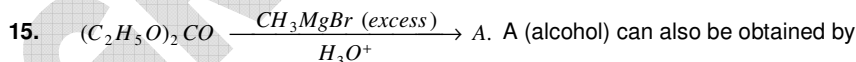
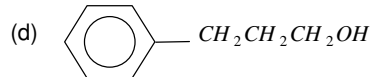
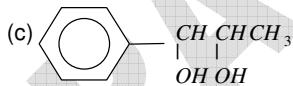
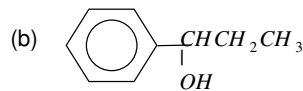
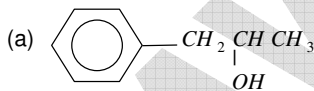
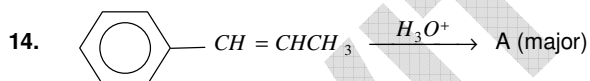
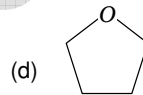
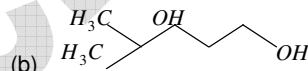
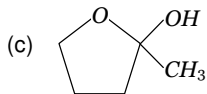
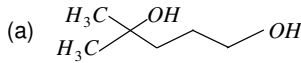
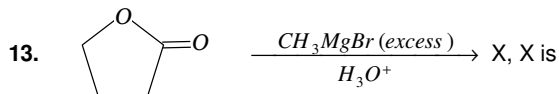
- (a) I, II and III (b) I and II (c) II and III (d) I and III

12. Rate of hydration of

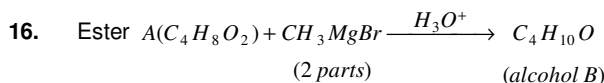


will be in order

- (a)  $I < II < III$  (b)  $I < III < II$  (c)  $II < I < III$  (d)  $III < II < I$

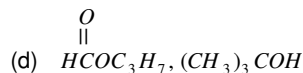
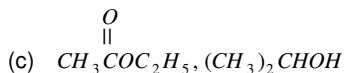
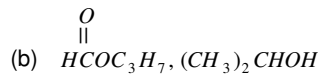
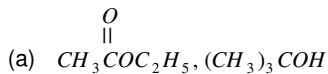


(d) As in (b) and (c)

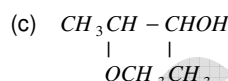
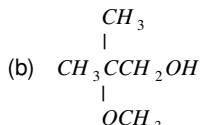
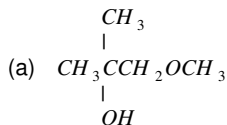
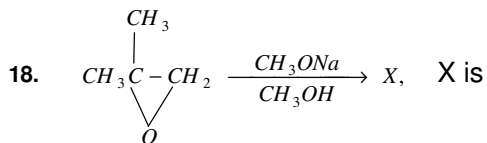
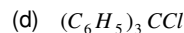
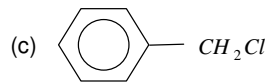
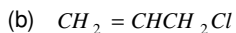
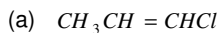


Alcohol B reacts fastest with Lucas reagent. Hence A and B are

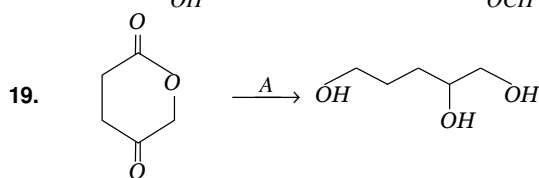
GRAVITY CLASSES



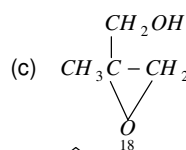
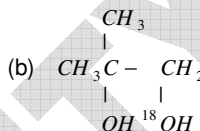
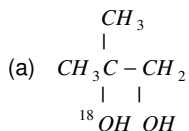
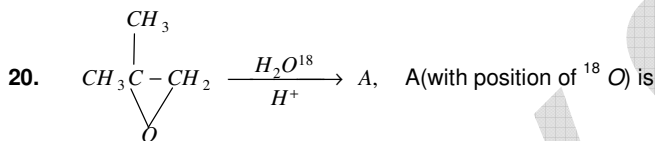
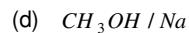
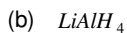
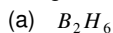
17. Which one of the following compounds is most rapidly hydrolysed by  $\text{S}_{\text{N}}1$  mechanism



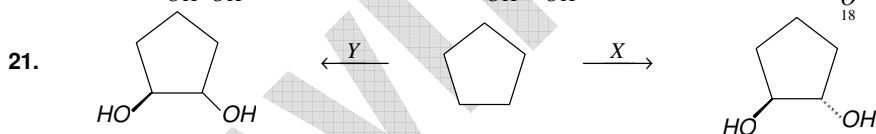
(d) None is correct



Reagent A used in this change is



(d) No reaction



Select X and Y out of I :  $\text{MnO}_4^- / \text{OH}^-$

II :  $\text{HCO}_3\text{H}$

(a) I, II

(b) II, I

(c) II, II

(d) I, I

22.  $\text{H}_2\text{C}=\text{C}_6\text{H}_{10}=\text{CH}_2$  will form terminal diol by

(a) Oxymercuration-demercuration

(b) Hydroboration oxidation

(c) Acid-catalysed hydration

(d) All given above

23. Sodium benzene sulphonate reacts with  $\text{NaOH}$  and then on acidic hydrolysis, it gives

(a) Phenol

(b) Benzoic acid

(c) Benzene

(d) Disodium benzaldehyde

24. Which of the following does not form phenol or phenoxide

(a)  $\text{C}_6\text{H}_5\text{Cl}$

(b)  $\text{C}_6\text{H}_5\text{COOH}$

(c)  $\text{C}_6\text{H}_5\text{N}_2\text{Cl}$

(d)  $\text{C}_6\text{H}_5\text{SO}_3\text{Na}$

25. Benzene diazonium chloride on hydrolysis gives

(a) Benzene

(b) Benzylalcohol

(c) Phenol

(d) Chlorobenzene



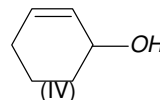
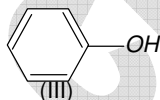
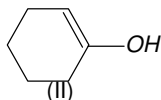
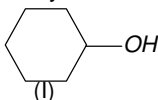
## GRAVITY CLASSES

40. A mixture of methanol vapours and air is passed over heated copper. The products are  
 (a) Carbon monoxide and hydrogen (b) Formaldehyde and water vapour  
 (c) Formic acid and water vapour (d) Carbon monoxide and water vapour
41. Which is more reactive with  $HBr$   
 (a) 2-methyl propane-2-ol (b) Propane-1-ol (c) Propane-2-ol (d) 2-methyl propane-1-ol
42. Propene is the product obtained by dehydration of  
 (a) 2-propanol (b) 1-propanol (c) Propanal (d)  $n$ -propyl alcohol
43. Isopropyl alcohol on oxidation forms  
 (a) Acetone (b) Ether (c) Ethylene (d) Acetaldehyde
44. Which of the following vapours passed over heated copper to form acetone



45. The acidity of the compounds  $RCOOH$ ,  $H_2CO_3$ ,  $C_6H_5OH$ ,  $ROH$  decreases in the order  
 (a)  $RCOOH > H_2CO_3 > C_6H_5OH > ROH$  (b)  $C_6H_5OH > RCOOH > H_2CO_3 > ROH$   
 (c)  $ROH > C_6H_5OH > RCOOH > H_2CO_3$  (d)  $H_2CO_3 > RCOOH > C_6H_5OH > ROH$
46. The acidic character of  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$  alcohols,  $H_2O$  and  $RC \equiv CH$  is in the order  
 (a)  $H_2O > 1^\circ > 2^\circ > 3^\circ > RC \equiv CH$  (b)  $RC \equiv CH > 3^\circ > 2^\circ > 1^\circ > H_2O$   
 (c)  $1^\circ > 2^\circ > 3^\circ > H_2O > RC \equiv CH$  (d)  $3^\circ > 2^\circ > 1^\circ > H_2O > RC \equiv CH$
47. The acid strengths of ethanol, isopropanol and tert. butanol decrease in the order  
 (a) Ethanol > isopropanol > tert. butanol (b) Tert. butanol > isopropanol > Ethanol  
 (c) Isopropanol > tert. butanol > Ethanol (d) Tert. butanol > Ethanol > isopropanol

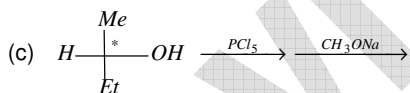
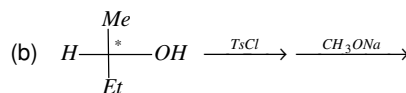
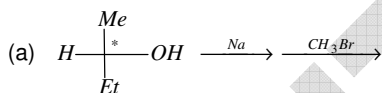
48. Dehydration of alcohols



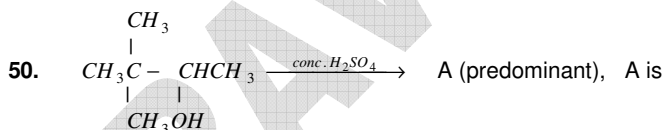
will be in order

- (a) I < II < III < IV (b) I > II > III > IV (c) III < II < I < IV (d) II < III < IV < I

49. In the following case configuration about chiral  $C^*$  is retained



- (d) In none case



- (a)  $(CH_3)_3CCH=CH_2$  (b)  $(CH_3)_2C=C(CH_3)_2$  (c)  $\begin{array}{c} CH_2=CC \\ | \\ CH_3 \end{array} H_2CH_2CH_3$  (d) None is correct