

Worksheet Alcohol

Part-1

Chemistry Affinity

Conceptual, Real world, Happy Learning

1. Dehydration of alcohol is an example of

**(A) Addition reaction, (B) elimination reaction, © substitution reaction,
(D) redox reaction**

2. Which of the following alcohols is the least soluble in water?

(A) butanol, (B) hexanol, © pentanol, (D) heptanol

3. Which of the following alcohols would be most soluble in water?

(A) butanol, (B) hexanol, © pentanol, (D) propanol

4. What type of alcohol is 2-methyl-2-pentanol?

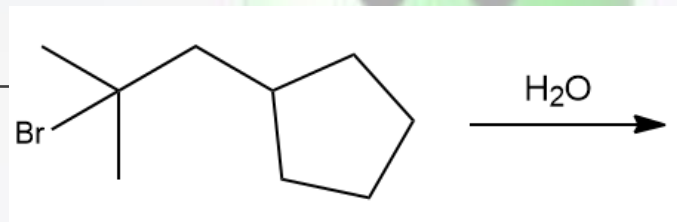
**(A) Primary alcohol (B) secondary alcohol,
(c) tertiary alcohol, (D) quaternary alcohol**

**5. Which of the following alcohols would have
the lowest boiling point?**

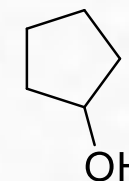
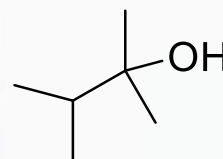
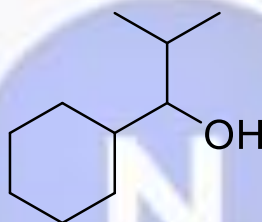
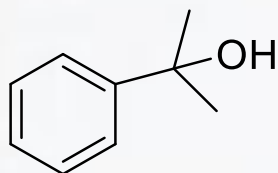
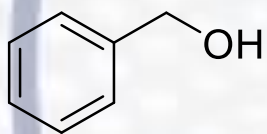
(A) butanol, (B) 2-methyl-2-butanol, © propanol, (D) ethanol

6. Phenol is less acidic than A. ethanol, B. o-nitrophenol, C. o-methyl phenol, D. o-methoxyphenol

7. Write down the product and mention which mechanism it follows?

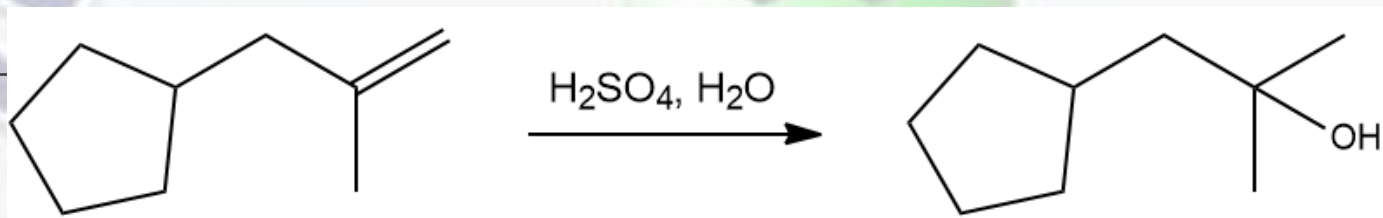


8. Classify the alcohol as primary, secondary and tertiary

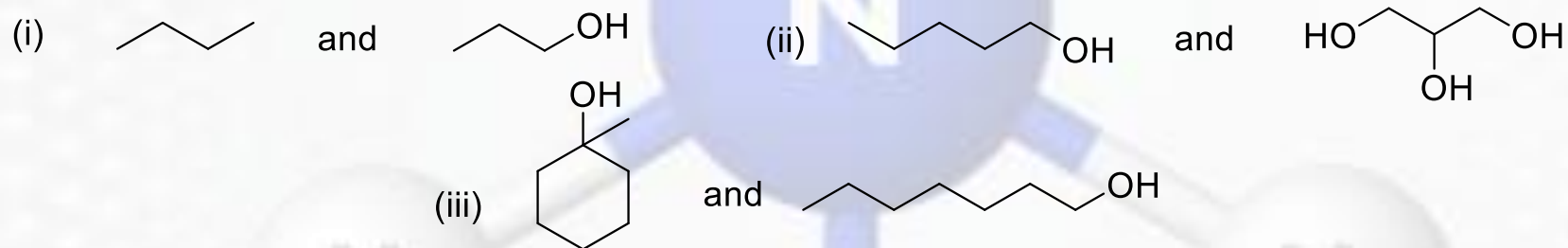


Isopropanol, secondary butyl alcohol, cyclohexanol, neopentyl alcohol

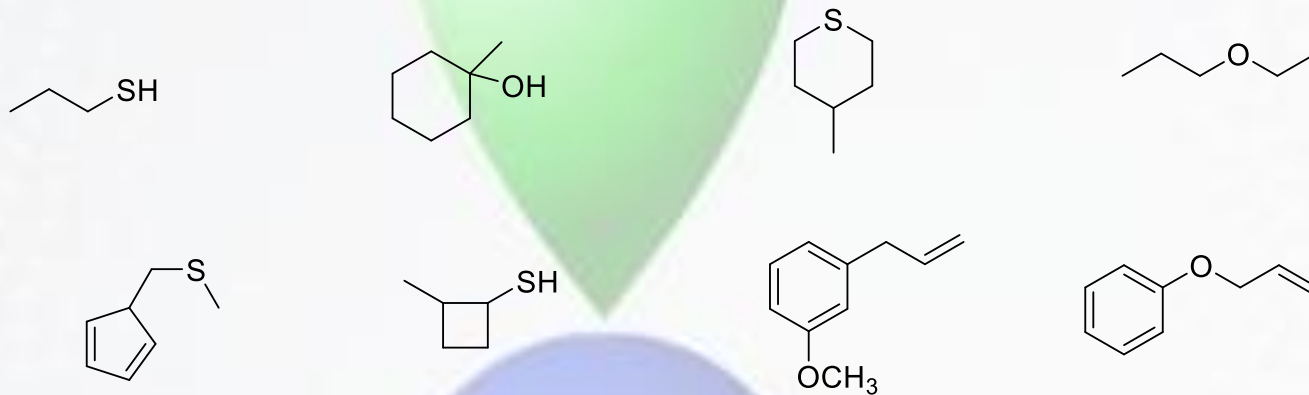
9. Draw the arrow pushing mechanism to show the product?



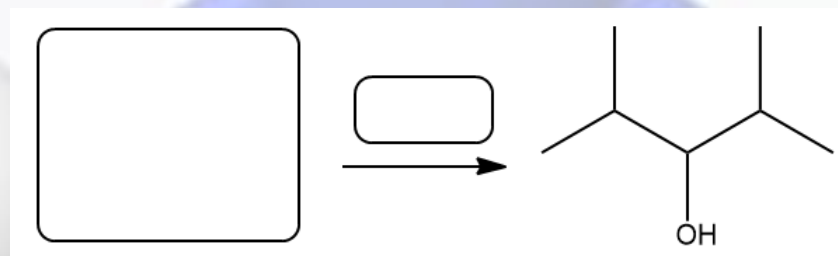
10. Explain the higher boiling point of the pair of molecules having similar molecular weight.



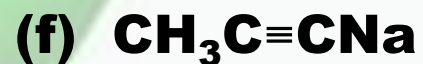
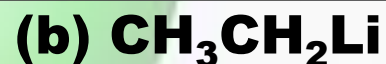
11. Label the following compounds as a thiol, alcohol, ether or thioether/sulphide



12. Provide an alkene and a reagent to get the product

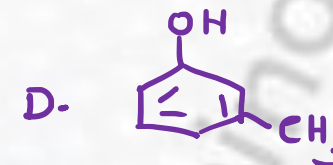


13. Which of the following are organometallic reagents ?



14. Which of the following "pictures" best represents the polarity of organometallic compounds ? (a) RM , (B) R^+M^- (C) R^-M^+

15. Which of the following compound is considered as phenolic compound or aromatic alcohol

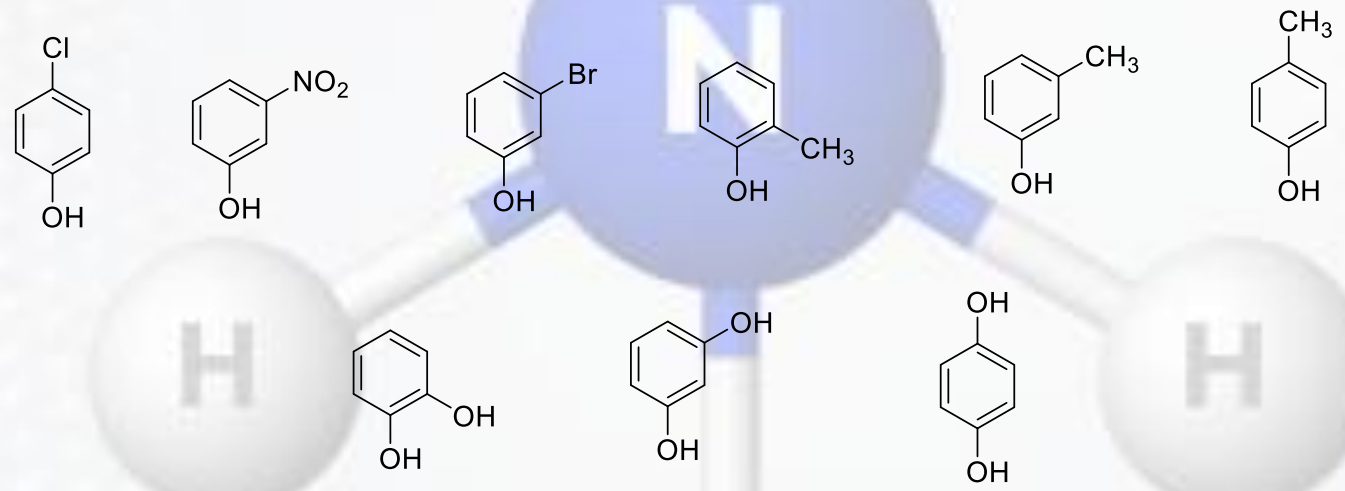


16. An unknown alkene with formula C_7H_{12} undergoes oxidation by hot alkaline $KMnO_4$ to yield, after acidification 6-ketoheptanoic acid.

Which of the following is that unknown alkene?

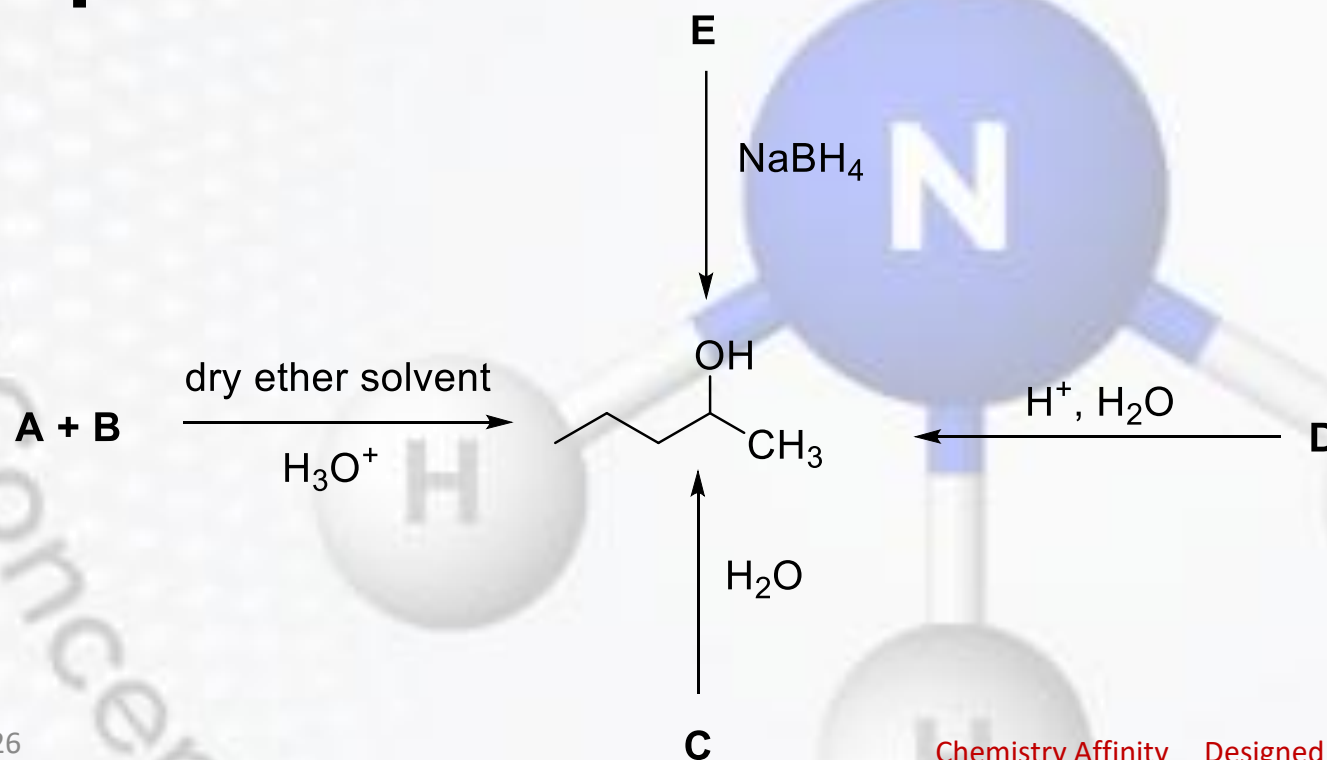
(A) Methyl cyclohexene, (B) Methyl cyclopentene, (C) 2-methyl pentene

17. Write down common name and IUPAC name of the following compounds



18. Compound A is treated with bromine in presence of FeBr_3 and form a compound B which is treated with magnesium and form a compound C. If we add water into C it converts to compound A. Compound C reacts with formaldehyde and gives primary alcohol D. Write down A, B, C and D with proper equations

19. Predict all the different starting materials A, B, C, D and E to yield 2-pentanol.



20. Write down the products when 1-methylcyclopentene undergoes hydroboration-oxidation and oxymercuration-demercuration respectively.

21. 2,2-dimethylpropanoic acid is treated with LiAlH_4 and followed by hydrolysis gives a compound A. A is treated with HBr and yields a compound B. When B is treated with alcoholic KOH it gives a compound C which decolorize bromine water. Write down A, B and C with proper equations.



All the best