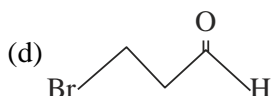
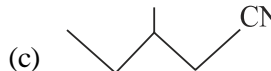


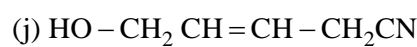
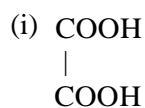
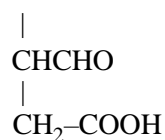
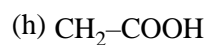
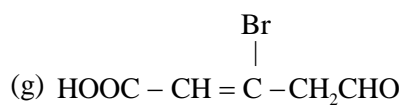
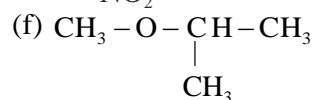
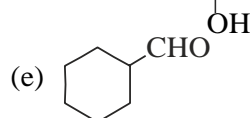
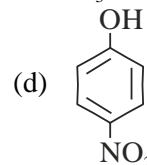
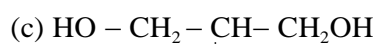
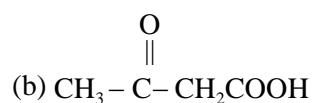
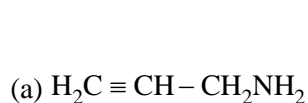
SBOA SCHOOL AND JUNIOR COLLEGE, CHENNAI-101
CHEMISTRY ASSIGNMENT-1

TOPIC : ORGANIC CHEMISTRY

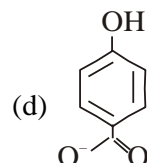
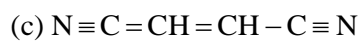
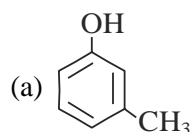
1. Write IUPAC names of the following :

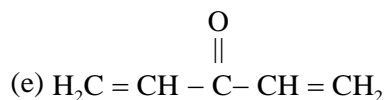


2. Write IUPAC names of the following organic compounds :



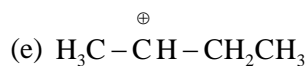
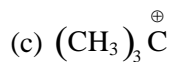
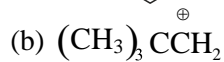
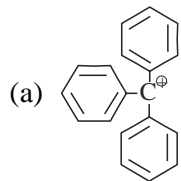
3. How many σ and π bonds are present in the following organic compounds :





4. Draw the structures of the following organic compounds :
- | | |
|----------------------------|----------------------------|
| (a) 2,2-dimethylhexane | (b) 4-methylpentanal |
| (c) 2-methylpropan-2-ol | (d) cyclohexylcarbaldehyde |
| (e) pent-3-enoic acid | (f) 4-nitrobenzoic acid |
| (g) ethylpropanoate | (h) ethoxybenzene |
| (i) 4-hydroxybutanenitrile | (j) 4-phenylbut-1-ene |
5. Mention the states of hybridisation of each carbon atom in the following compounds :
- (a) $\text{C} \text{H}_2 = \text{C} = \text{O}$
- (b) $\text{CH}_3 - \text{C} \equiv \text{CH}$
- (c) $\begin{array}{l} \text{H}_3\text{C} \\ \quad \diagdown \\ \quad \quad \text{C} = \text{O} \\ \quad \diagup \\ \text{H}_3\text{C} \end{array}$
- (d) C_6H_6
- (e) $\text{H}_2\text{C} = \text{CH} - \text{CH}_2 - \text{C} \equiv \text{CH}$

6. Which of the following carbocation is most stable :

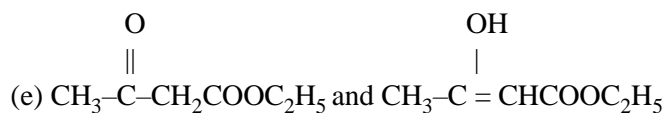
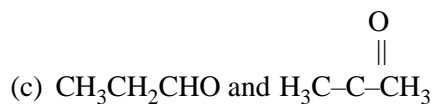
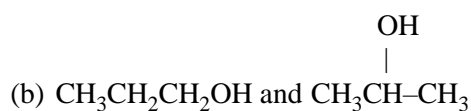
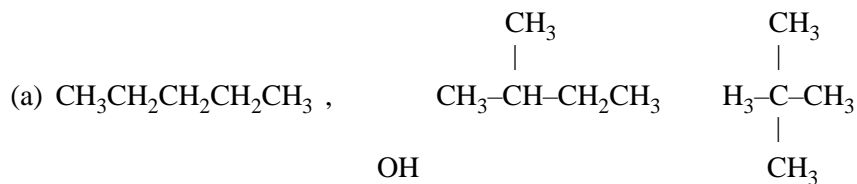


Arrange the above carbocations in the decreasing order of their stability.

7. Arrange the following compounds in the increasing order of their acidic and basic strength :

- (a) ClCH_2COOH , Cl_3CCOOH and Cl_2CHCOOH
 (b) $\text{CH}_3\text{CH}_2\text{COOH}$, $(\text{CH}_3)_2\text{CHCOOH}$ and $(\text{CH}_3)_3\text{CCOOH}$
 (c) CH_3NH_2 , CH_3NHCH_3 , $(\text{CH}_3)_3\text{N}$, $\text{C}_6\text{H}_5\text{NHCH}_3$

8. Write the isomerism among the following compounds :



9. An organic compound was found to contain C = 39.13%, H = 8.64% and remaining is oxygen. Calculate the empirical formula of the compound.

[Ans. $\text{C}_3\text{H}_8\text{O}_3$]

10. An organic compound gave the following results on analysis :

C = 17.39%, H = 1.45%, Br = 57.97%, O = 23.19%. Molar mass of the compound was found to be 276 g mol^{-1} . Calculate its molecular formula.

[Ans. $\text{C}_4\text{H}_4\text{Br}_2\text{O}_4$]