
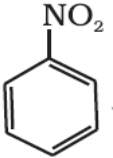
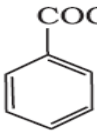
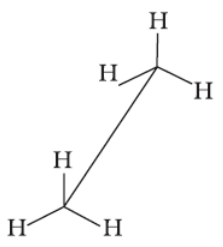
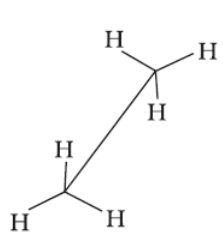


Class: XI	<b>INDIAN SCHOOL MUSCAT</b> <b>SECOND PERIODIC TEST</b> <b>Subject : Chemistry</b>	
	<b>SET - C</b>	
	<b>VALUE POINTS</b>	
1.	Positional	1
2.	Add ammonical $\text{AgNO}_3$ . But-1-yne gives a white ppt but not But-2-yne	1
3.	Ethanal and propanal	1
4.	a) Cis is more polar and has greater vander Waal's force of attraction. b) 2,2-Dimethylpropane < 2-Methylbutane < Pentane	2
5.	a) 1-Chloropropane is obtained. b) Ethane-1,2-diol is formed.	2
6.	a) <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <math>\begin{array}{c} \text{H}_3\text{C} \\ \diagdown \\ \text{C} = \text{C} \\ \diagup \\ \text{H} \end{array} \begin{array}{c} \text{CH}_2\text{CH}_2\text{CH}_3 \\ \diagup \\ \text{H} \end{array}</math>              Cis           </div> <div style="text-align: center;"> <math>\begin{array}{c} \text{H}_3\text{C} \\ \diagdown \\ \text{C} = \text{C} \\ \diagup \\ \text{CH}_2\text{CH}_2\text{CH}_3 \end{array} \begin{array}{c} \text{H} \\ \diagup \end{array}</math>              Trans           </div> </div> b) No, does not satisfy the $(4n + 2)$ rule.	1+1
7.	a) Decarboxylation : Process of removal of $\text{CO}_2$ from carboxylic acids. $\text{CH}_3\text{COONa} + \text{NaOH} \xrightarrow{\text{CaO}, \Delta} \text{CH}_4 + \text{Na}_2\text{CO}_3$ b) <div style="text-align: center;">  <math>+ \text{Conc HNO}_3 + \text{Conc H}_2\text{SO}_4 \xrightarrow{\Delta}</math>  <math>+ \text{H}_2\text{O}</math> </div>	2
8.	a) <div style="margin-left: 40px;">             i) <math>\text{CH}_3\text{COOH} \xrightarrow{\text{Na}} \text{CH}_3\text{COONa} \xrightarrow{\text{NaOH}+\text{CaO}} \text{CH}_4 + \text{Na}_2\text{CO}_3</math>              ii) <math>\text{Propan-2-ol} \xrightarrow{\text{Conc H}_2\text{SO}_4} \text{Propene} \xrightarrow{\text{HBr}} \text{2-Bromopropane}</math> </div> b) <div style="text-align: center;">  </div>	3

9.	<p>(i) <math display="block">\text{C}_6\text{H}_5-\overset{\text{O}}{\parallel}\text{C}-\text{O}-\text{O}-\overset{\text{O}}{\parallel}\text{C}-\text{C}_6\text{H}_5 \xrightarrow{\text{Homolysis}}</math> Benzoyl peroxide</p> $2\text{C}_6\text{H}_5-\overset{\text{O}}{\parallel}\text{C}-\ddot{\text{O}}\cdot \rightarrow 2\dot{\text{C}}_6\text{H}_5 + 2\text{CO}_2$ <p>(ii) <math display="block">\dot{\text{C}}_6\text{H}_5 + \text{H}-\text{Br} \xrightarrow{\text{Homolysis}} \text{C}_6\text{H}_6 + \dot{\text{Br}}</math></p> <p>(iii) <math display="block">\text{CH}_3-\text{CH}=\text{CH}_2 + \dot{\text{Br}} \xrightarrow{\text{Homolysis}}</math></p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <math display="block">\begin{array}{c} \text{CH}_3-\text{CH}(\text{Br})-\dot{\text{C}}\text{H}_2 \\ \text{(a)} \\ \text{(less stable} \\ \text{primary free} \\ \text{radical)} \end{array}</math> </div> <div style="text-align: center;"> <math display="block">\begin{array}{c} \text{CH}_3-\dot{\text{C}}\text{H}(\text{Br})-\text{CH}_2-\text{Br} \\ \text{(b)} \\ \text{(more stable} \\ \text{secondary free} \\ \text{radical)} \end{array}</math> </div> </div> <p>(iv) <math display="block">\text{CH}_3-\dot{\text{C}}\text{H}-\text{CH}_2\text{Br} + \text{H}-\text{Br} \xrightarrow{\text{Homolysis}}</math></p> $\text{CH}_3-\text{CH}_2-\text{CH}_2\text{Br} + \dot{\text{Br}} \text{ (major product)}$	3
10.	<p>a)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>(i) Eclipsed</p> </div> <div style="text-align: center;">  <p>(ii) Staggered</p> </div> </div> <p>Staggered form is more stable than the eclipsed form. In staggered form the C-H bonds are far apart, thus there is minimum repulsive forces, minimum energy and maximum stability.</p> <p>b) H-I bond is weaker and iodine free radicals combine to form iodine molecule instead of adding to double bond.</p>	3