

**COMPETENCY BASED ASSESSMENT**  
**JANUARY 2024**  
**CLASS XI**

Q NO	CHAPTER	QUESTION	ANSWER	EXPLANATION
1	SOME BASIC PRINCIPLES & TECHNIQUES	During Lassaigne's test set of Sulphur and nitrogen present in an organic compound change into:	Na <sub>2</sub> S and NaCN	During Lassaigne's test Sulphur and nitrogen compounds change into Na <sub>2</sub> S and NaCN
2	SOME BASIC PRINCIPLES & TECHNIQUES	A miscible mixture of benzene and chloroform can be separated by:	DISTILLATION	Solution: A miscible mixture of benzene and chloroform can be separated by distillation process due to different boiling points.
3	SOME BASIC PRINCIPLES & TECHNIQUES	Molecular mass of volatile substance is determined by	VICTOR MEYER METHOD	Victor Mayer's method is useful for volatile substances.
4	SOME BASIC PRINCIPLES & TECHNIQUES	Assertion: Energy of resonance hybrid is equal to the average of energies of all canonical forms. Reason: Resonance hybrid cannot be presented by a single structure.	Assertion is false, Reason is true.	
5	SOME BASIC PRINCIPLES & TECHNIQUES	Assertion: Different number of electron pairs are present in resonance structures. Reason: Resonance structures differ in the location of electrons around the constituent atoms.	Assertion is False but Reason is True	

6	SOME BASIC PRINCIPLES & TECHNIQUES	<p>Assertion: Components of a mixture of red and blue inks can be separated by distributing the components between stationary and mobile phases in paper chromatography.</p> <p>Reason: The coloured components of inks migrate at different rates because paper selectively retains different components according to the difference in their partition between the two phases.</p>	Both are correct with correct explanation	
7	SOME BASIC PRINCIPLES & TECHNIQUES	<p>Assertion: Sulphur present in an organic compound can be estimated quantitatively by Carius method.</p> <p>Reason: Sulphur is separated easily from other atoms in the molecule and gets precipitated as light-yellow solid.</p>	Assertion is correct but Reason is NOT correct	Technique is wrongly described
8	SOME BASIC PRINCIPLES & TECHNIQUES	Homolytic Cleavage leads to formation of	Free Radical	Homolytic Cleavage leads to equal distribution of shared electron hence leads to the formation of Free Radical and is generally took place in presence of Light, NBS etc
9	SOME BASIC PRINCIPLES & TECHNIQUES	How many hyperconjugation structures are possible for But-2-ene		Six Possible Hyperconjugation In case of alkene Hyperconjugation structures are determined by Number of Hydrogen attached to the Carbon attached to unsaturated system

10	<b>SOME BASIC PRINCIPLES &amp; TECHNIQUES</b>	The most satisfactory method to separate mixture of sugar is:	Chromatography	Chromatography is the most satisfactory method to separate a mixture of sugar
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