

BASAVA INTERNATIONAL SCHOOL  
 TERM-II ,UNIT TEST-II  
 SUBJECT: CHEMISTRY (043)

CLASS : XII  
 DATE: 10-11- 25

M.M:25  
 Time: 1Hr.

General Instructions:

- The question paper is divided into four sections:  
**Section A:** Multiple choice question-each question carries 1 mark.  
**Section B:** Short answer – I each question carries 2 marks.  
**Section C:** Short answer – II each question carries 3 marks.  
**Section D:** Long answer carries 5 marks.  
 All questions are compulsory

Section-A		
1.	One of the characteristics of transition metals to form the complex ion is: (a) Having unpaired electron in <i>d</i> -subshell (b) Having paired electrons in <i>d</i> -subshells (c) Providing empty <i>d</i> -orbitals (d) Having small charge/size ratio	1
2.	$\begin{array}{c} \text{X} \\ (\text{C}_2\text{H}_6\text{O}) \end{array} \xrightarrow[573\text{ K}]{\text{Cu}} \text{A} \xrightarrow[\text{OH}^-]{[\text{Ag}(\text{NH}_3)_2]^+/\text{OH}^-} \text{Y}$ $\text{A} \xrightarrow{\text{NH}_2\text{NHCONH}_2} \text{Z}$ Identify X,Y and Z (a) A-methoxymethane, X-ethanol, Y-ethanoic acid, Z-semicarbazide (b) A-ethanal, X-ethanol, Y-but-2-enal, Z-semicarbazone (c) A-ethanol, X-Acetaldehyde, Y-Butanone, Z-Hydrazone (d) A-Methoxymethane, X-ethanoic acid, Y-acetate ion and Z-Hydrazone	1
3.	Which of the following reactions will not result in the formation of carbon carbon bond? (a) Cannizaro's reaction (b) Wurtz reaction (c) Friedel craft reaction (d) Reimer Tiemann reaction	1
4.	Which of the following actinoids show oxidation states upto + 7? (a) Am (b) Pu (c) U (d) Np	1
5.	$\text{CH}_3\text{CHO} + \text{HCHO} \xrightarrow[\text{Heat}]{\text{dilNaOH}} \text{A} \xrightarrow[\text{H}_2\text{O}]{\text{HCN}} \text{B}$ the structure of 'B' is: (a) $\text{CH}_2=\text{CH}-\underset{\text{OH}}{\text{CH}}-\text{COOH}$ (b) $\text{CH}_2=\text{CH}-\underset{\text{CN}}{\text{CH}}-\text{OH}$ (c) $\text{CH}_3-\text{CH}_2-\underset{\text{OH}}{\text{CH}}-\text{COOH}$ (d) $\text{CH}_3-\underset{\text{OH}}{\text{CH}}-\text{COOH}$	1
Section-B		
6.	Would you expect benzaldehyde to be more reactive or less reactive in nucleophilic addition reactions than propanal ? Explain your answer	2
7.	(i) Why is the highest oxidation state of a metal exhibited in its oxide or fluoride only ? (ii) Briefly explain why electronic configuration of lanthanoids are not known with certainty	2



