

**Parvatibai Chowgule College of Arts & Science, Margao-Goa.**  
(Higher Secondary Section)

Class: - XII Science

Max Marks:- 20

Day: Tuesday

(Subject:-Chemistry)

Date:- 27-10-2015

Time: - 12.00 a.m. TO 01.00 p.m.

**Practice test**

Duration: - One Hour

Total No of Questions: - 2

**for Formative Test-II October - 2015**

Total No of Printed pages: 2

<u>Q No</u>	<u>INSTRUCTIONS:</u>	<u>Marks</u>
	(1) Figures to the right-indicate full marks. (2) Use of calculators is not permitted, however mathematical tables will be provided on request. (3) Multiple Choice Questions should be attempted only once. (4) Atomic masses & Constants: H=1,C=12,N=14 F = 96500 C mol <sup>-1</sup> , N <sub>A</sub> =6.023×10 <sup>23</sup> ,h=6.626 x 10 <sup>-34</sup>	
<b>Q 1 A</b>	<b>Explain the following</b> a) Formation of complex compounds w.r.t transition elements. b) Formation of coloured compounds w.r.t transition elements. c) Zirconium and Hafnium have almost similar radii.	<b>3</b>
<b>Q 1 B</b>	Write chemical reactions to show the preparation of potassium dichromate from chromite ore.	<b>2</b>
<b>Q 1 C</b>	Determine the values of equilibrium constant (K <sub>c</sub> ) and ΔG <sup>o</sup> for the following reactions: $\text{Ni(s)} + 2\text{Ag}^+(\text{aq}) \longrightarrow \text{Ni}^{2+}(\text{aq}) + 2\text{Ag(s)}, E^o = 1.05\text{V}$ $\left(1\text{F} = 96500 \text{ C mol}^{-1}\right)$	<b>2</b>
<b>Q 1 D</b>	<b>State the following.</b> 1. Faraday's First Law of Electrolysis 2. Kohlrausch's law of independent migration of ions.	<b>2</b>
<b>Q 1 E</b>	<i>Complete the following statement by choosing the correct alternative from those given below the statement and rewrite the completed statement:</i> <b>On hydrolysis maltose gives _____</b>	<b>1</b>
	<ul style="list-style-type: none"><li>❖ One molecule of glucose and one molecule of fructose</li><li>❖ One molecule of glucose and one molecule of galactose</li><li>❖ Two molecules of glucose</li></ul>	

❖ Two molecules of fructose

**Q 2 A Explain the following reactions with an example. 3**

- a) Kolbe's reaction
- b) Reimer-Teimann reaction
- c) Williamson's synthesis

**Q 2 B Answer the following. 2**

- a) Write the chemical reaction to show the presence of an aldehyde group in glucose.
- b) Write two important structural differences between DNA and RNA.

**Q 2 C Differentiate between physisorption and chemisorption with respect to effect of temperature and enthalpy of adsorption. 2**

**Q 2 D Answer the following. 2**

- a) Draw a neat labeled diagram to show the preparation of colloidal solution of silver by Bredig's arc method.
- b) Explain the process of settling of colloidal particles by electrophoresis.

**Q 2 E Complete the following statement by choosing the correct alternative from those given below the statement and rewrite the completed statement: 1**

**Anisole reacts with HI at 373 K to give \_\_\_\_\_**

- ❖  $C_6H_5I + CH_3OH$
- ❖  $CH_3I + C_6H_5OH$
- ❖  $C_6H_5CH_2OH + CH_3I$
- ❖  $CH_3CH_2I + C_6H_5OH$

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