

CHEMISTRY

2017

Time: 20 Minutes

Max. Marks: 17

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options:

- (i) Chemical composition of colemanite is:
- $\text{Ca}_2\text{B}_6\text{O}_{11} \cdot 5\text{H}_2\text{O}$ • $\text{CaB}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$
 - $\text{Na}_2\text{B}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$ • $\text{CaNaB}_5\text{O}_7 \cdot 8\text{H}_2\text{O}$
- (ii) Coinage metals are elements of 1B group and these include:
- Cu, Ag, Au • Zn, Cd, Hg • Fe, Co, Ni • Cu, Zn, Ni
- (iii) Having half-filled valence shell, Hydrogen resembles the
- Elements of VA group • Elements of IVA group
 - Elements of VIA group • Elements of VIIA group
- (iv) Plaster of Paris is obtained by heating:
- Gypsum • Epsom • Limestone • Dolomite
- (v) The mixture of Aluminum powder and Aluminum nitrate is known as:
- Aluminum bronze • Duralumin • Ammonal • Alum
- (vi) The commercial name of Phenol Formaldehyde Polymer is:
- Celluloid • Teflon • P.V.C. • Bakelite
- (vii) In the following hydrogenation reaction
- $$\text{CH} \equiv \text{CH} \xrightarrow[\text{Heat}]{\text{H}_2/\text{Ni}} \text{CH}_2 = \text{CH}_2 \xrightarrow[\text{Heat}]{\text{H}_2/\text{Ni}} \text{CH}_3 - \text{CH}_3$$
- is change in hybridization state of carbon atoms is:
- $\text{sp}^3 \rightarrow \text{sp}^2 \rightarrow \text{sp}$ • $\text{sp} \rightarrow \text{sp}^2 \rightarrow \text{sp}^3$
 - $\text{sp}^2 \rightarrow \text{sp}^3 \rightarrow \text{sp}$ • $\text{sp}^3 \rightarrow \text{sp} \rightarrow \text{sp}^2$
- (viii) The first step is similar in these mechanism:
- E_1 and E_2 • SN^1 and E_2 • E_1 and SN^2 • SN^1 and E_1
- (ix) In Acetone, the numbers of bonds are:
- Nine σ and one π • Ten σ
 - Eight σ and two π • Nine π and one σ
- (x) Octane number is related to:
- Gasoline • Kerosene • Diesel oil • Lubricating oil
- (xi) The reagent converts acetic acid into Acetyl Chloride is:
- NaCl • HCl/ZnCl_2 • SOCl_2 • HCl
- (xii) Sodium burns with excess of Oxygen to form its:
- Peroxide • Superoxide • Monoxide • Dioxide
- (xiii) It is not a member of Vitamin B complex:

- Niacin • Folic acid • Retinol • Riboflavin

(xiv) Royal water is a mixture in the ratio of 1:3 by volume of:

- $\text{HCl}, \text{H}_2\text{SO}_4$ • HNO_3, HCl • $\text{H}_2\text{SO}_4, \text{HNO}_3$ • HCl, HF

(xv) The temperature at which two allotropic form of an element exist in equilibrium state is:

- Transition Temperature • Equilibrium Temperature
- Normal Temperature • Unstable Temperature

(xvi) $\text{CH}_4 \xrightarrow[700^\circ\text{C}]{\text{Absence of oxygen}} 2\text{H}_2 + \text{A}$. In the given reaction, 'A' is:

- CO_2 • C • CO • H_2O

(xvii) This is not nitrogenous fertilizer: • Ammonium nitrate

- Urea • Ammonium sulphate • Triple phosphate