136 BN-XI-XIX-I S2019

CHEMISTRY

PART-I

Note: There are three sections of this paper. Read the instruction carefully and attempt accordingly

SECTION "A" (VERSION-B)

Time: 20 Minutes Marks: 18

Q.No.1: Attempt all questions of section "A" by filling the corresponding bubble on the MCQs ANSWER SHEET. Cutting, erasing and over writing will be awarded no marks.

(i). The rate of reaction.....as reaction proceeds. (A) Remains same (B) Increases (C) May decrease or increase (D) Decreases

(ii). Surface tension has.....unit. (A) Nm^{-1} (B) Nm^{-2} (C) $Poise$ (D) $Kg\ m^{-1}\ s^{-1}$

(iii). The splitting of spectral lines in the presence of magnetic field is called.....(A) Stark effect (B) Zeeman effect (C) Photoelectric effect (D) Compton effect

(iv). Maximum number of electrons in a subshell with $l = 2\ and\ n = 3$ is (A) 2 (B) 3 (C) 6 (D) 10

(v). Enthalpy is heat content of a system at constant.....(A) Pressure (B) Temperature (C) Volume (D) Heat

(vi). In ethyne for the formation of Pi (π) bonds.....orbitals are involved. (A) SP hybridized (B) SP^2 hybridized (C) SP^3 hybridized (D) Unhybridized (p) orbitals

(vii). Kp=kc, when Δn is equal to.....(A) Zero (B) +1 (C) -1 (D) 2

(viii). Evaporation of liquid causes..... (A) Thermal expansion (B) Liquefaction (C) Cooling (D) All of these

(ix). Limiting reactant is one which..... (A) Produces more product (B) Consumes earlier (C) Not effect the yield (D) Increase the yield

(x). Freezing point of solution as compare to the pure solvent is...(A) Higher (B) Lower (C) Variable (D) Remain the same

(xi). A large value of Kc means that at equilibrium....(A) Less reactants and more products (B) More reactants and less products (C) Same amount (D) None

(xii). In BF_3 the bond angles are..... (A) 180^0 (B) 87.5^0 (C) 120^0 (D) 109.5^0

(xiii). In SI units, the value of 'R' is.....(A) $8.3413\ Nmk^{-1}mol^{-1}$ (B) $8.3143\ Nmk^{-1}mol^{-1}$ (C) $0.0821 dm^3\ atmk^{-1}mol^{-1}$ (D) $62.4 dm^3 torr\ mol^{-1}\ k^{-1}$

(xiv). Which one of the following is paramagnetic? (A) N_2 (B) O_2^{+2} (C) O_2^{-2} (D) O_2

(xv). If 10% urea is present in Nacl as impurity, its crystal will become...(A) Cubic (B) Oval (C) Round (D) Needle like

(xvi). Example of a buffer solution is ...(A) H_2SO_4 /Na_2SO_4 (B) NaOH/NaCl (C) CH_3COOH/CH_3COONa (D) HCl/NaCl

(xvii). ..... has no units. (A) Molarity (B) Molality (C) Mole fraction (D) None of these

(xviii). Oxidation take place at.....(A) Anode (B) Cathode (C) Negative electrode (D) None of these