# CHEMISTRY

## BOOKS - KUMAR PRAKASHAN KENDRA CHEMISTRY (GUJRATI ENGLISH)

## QUESTION ASKED IN NEET - 2018

**Mcq**

**1.** A mixture of 2.3 g formic acid and 4.5 g oxalic acid is treated with conc. $H_2SO_4$ . The

evolved gaseous mixture is passed through KOH pellets. Weight (in g) of the remaining product at STP will be

A. 4.4

B. 1.4

C. 2.8

D. 3

**Answer: C**

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**2.** In which case is the number of molecules of water maximum ?

A. $10^{-3}$ mole of water

B. 18 ml of water

C. 0.00224 L of water vapours at 1 atm and 273 K

D. 0.18 g of water

**Answer: B**

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**3.** Among $CaH_2, BeH_2, BaH_2$ the order of ionic character is :

A. $BaH_2 < BeH_2 < CaH_2$

B. $BeH_2 < CaH_2 < BaH_2$

C. $BeH_2 < BaH_2 < CaH_2$

D. $CaH_2 < BeH_2 < BaH_2$

**Answer: B**

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**4.** Which one is a wrong statement ?

A. The value of m for $d_z^2$ is zero.

B. Total orbital angular momentum of electron in 's' orbital is equal to zero.

C. The electronic configuration of N atom is

D. An orbital is designated by three quantum numbers while and electron in an atom is designated by four quantum numbers.

**Answer: C**

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**5.** Magnesium reacts with an element (X) to form an ionic compound. If the ground state electronic configuration of (X) is $1s^2 2s^2 2p^3$ , the simplest formula for this compound is

A. $Mg_3X_2$

B. $Mg_2X_3$

C. $Mg_2X$

D. $MgX_2$

**Answer: A**

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**6.** Which one of the following elements is unable to form $MF_6^{3-}$ ion ?

A. In

B. Ga

C. B

D. Al

**Answer: C**

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**7.** The correct order of atomic radii in group 13 elements is

A. B lt Ga lt Al lt In lt TI

B. B lt Al lt In lt Ga lt TI

C. B lt Ga lt Al lt Ti lt In

D. B lt Al lt Ga lt In lt TI

**Answer: A::D**

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**8.** Consider the following species :

$CN^+$, $CN^-$, $NO$ and CN

Which one of these will have the highest bond order?

A. CN

B. NO

C. $CN^+$

D. $CN^-$

**Answer: D**

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**9.** In the structure of $CIF_3$ , the number of lone pairs of electrons on central atom 'Cl' is

A. three

B. one

C. four

D. two

**Answer: D**

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**10.** Which of the following molecules represents the order of hybridisation $sp^2$, $sp^2$, $sp$, $sp$ from left to right atoms?

A. $CH_3 - CH = CH - CH_3$

B. $CH \equiv C - C \equiv CH$

C. $CH_2 = CH - CH = CH_2$

D. $CH_2 = CH - C \equiv CH$

**Answer: D**

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**11.** Given van der Waals constant for $NH_3, H_2, O_2$ and $CO_2$ are respectively 4.17,

0.244, 1.36 and 3.59, which one of the following gases is most easily liquefied ?

A. $CO_2$

B. $NH_3$

C. $O_2$

D. $H_2$

**Answer: B**

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**12.** The correction factor 'a' to the ideal gas equation corresponds to

A. forces of attraction between the gas molecules.

B. density of the gas molecules.

C. electric field present between the gas molecules.

D. volume of the gas molecules.

**Answer: A**

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**13.** The bond dissociation energies of $X_2, Y_2$ and XY are in the ratio of 1: 0.5 : 1. $\Delta H$ for the formation of XY is $-200 kJ \text{mol}^{-1}$ . The bond dissociation energy of $X_2$ will be

A. $400 kJ \text{mol}^{-1}$

B. $200 kJ \text{mol}^{-1}$

C. $800 kJ \text{mol}^{-1}$

D. $100 kJ \text{mol}^{-1}$

**Answer: C**

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**14.** Following solutions were prepared by mixing different volumes of NaOH and HCl of different concentrations:

$(a) 60ml,\ \frac{M}{10} HCl + 40ml \frac{M}{10} NaOH$

$(b) 55ml,\ \frac{M}{10} HCl + 45ml \frac{M}{10} NaOH$

$(c) 75ml,\ \frac{M}{5} HCl + 25ml \frac{M}{5} NaOH$

$(d) 100ml,\ \frac{M}{5} HCl + 100ml \frac{M}{10} NaOH$

pH of which one of them will be equal to 1?

A. c

B. b

C. d

D. a

**Answer: A**

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**15.** The solubility of $BaSO_4$ in water is $2.42 \times 10^{-3} gL^{-1}$ at 298 K. The value of its

solubility product (Ksp) will be (Given molar mass of $BaSO_4 = 233 g \text{mol}^{-1}$)

A. $1.08 \times 10^{-8} \text{mol}^2 L^{-2}$

B. $1.08 \times 10^{-10} \text{mol}^2 L^{-2}$

C. $1.08 \times 10^{-14} \text{mol}^2 L^{-2}$

D. $1.08 \times 10^{-12} \text{mol}^2 L^{-2}$

**Answer: B**

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**16.** Which one of the following conditions will favour maximum formation of the product in the reaction,

$$A_2(g) + B_2(g) \Leftrightarrow X_2(g), \Delta_r H = -Xkj$$

A. High temperature and low pressure

B. Low temperature and high pressure

C. High temperature and high pressure

D. Low temperature and low pressure

**Answer: B**

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