

Gujranwala Board

10th – 2019

Chemistry Group 1

i) Matte is a mixture of: (Mark 1)

- A. FeS and CuS
- B. Cu₂O and FeO
- C. Cu₂S and FeS
- D. CuS and FeO

Answer:

- C. Cu₂S and FeS

ii) Which one of the following gases is used to destroy harmful bacteria in water? (Mark 1)

- A. iodine
- B. chlorine
- C. flourine
- D. bromine

Answer:

- B. chlorine

iii) Deficiency of vitamin-D causes _____ disease. (Mark 1)

- A. night blindness
- B. rickets
- C. eye inflammation
- D. hepatitis

Answer:

- B. rickets

iv) The reduction of alkyl halides takes place in the presence of:(Mark 1)

- A. Zn/HCl
- B. Na/HCl
- C. Mg/HCl
- D. Cu/HCl

Answer:

- A. Zn/HCl

v) The natural source of formic acid is: (Mark 1)

- A. citrus fruits
- B. sour milk
- C. stings of bees
- D. rancid butter

Answer:

- C. stings of bees

vi) Reaction which have comparable amount of reactants and products at equilibrium state have: (Mark 1)

- A. very small K_c value
- B. very large K_c value
- C. moderate K_c value
- D. $K_c = 0$

Answer:

C. moderate K_c value

vii) For a reaction between PCl_3 and Cl_2 to form PCl_5 the units of K_c are:

(Mark 1)

- A. mol dm^{-3}
- B. $\text{mol}^{-1} \text{dm}^{-3}$
- C. $\text{mol}^{-1} \text{dm}^3$
- D. mol dm^3

Answer:

C. $\text{mol}^{-1} \text{dm}^3$

viii) Which one of the following is Lewis base?

(Mark 1)

- A. NH_3
- B. BF_3
- C. H^+
- D. AlCl_3

Answer:

A. NH_3

ix) General formula of alkane is:

(Mark 1)

- A. $\text{C}_n\text{H}_{2n+2}$
- B. $\text{C}_n\text{H}_{2n-2}$
- C. $\text{C}_n\text{H}_{2n+1}$
- D. C_nH_{2n}

Answer:

A. $\text{C}_n\text{H}_{2n+2}$

x) Penthydroxy aldehyde is also called as:

(Mark 1)

- A. glucose
- B. fructose
- C. starch
- D. sucrose

Answer:

A. glucose

xi) Which gas protects the earth from ultraviolet radiations? (Mark 1)

- A. CO_2
- B. SO_2
- C. NO_x
- D. O_3

Answer:

D. O_3

xii) Which one of the following disease causes severe diarrhea and can be fatal?

(Mark 1)

- A. jaundice
- B. dysentery

C. cholera
D. typhoid
Answer:
C. cholera

- Q.2 i) How direction of reaction can be predicted? (Marks 2)
- Q.2 ii) What is irreversible reaction? write one characteristic of it. (Marks 2)
- Q.2 iii) What is meant by active mass? Also, write its unit. (Marks 2)
- Q.2 iv) Write two characteristics of reversible reaction. (Marks 2)
- Q.2 v) Write two examples of Lewis acid. (Marks 2)
- Q.2 vi) Write two examples of Lewis base. (Marks 2)
- Q.2 vii) Write two examples of mineral acids. (Marks 2)
- Q.2 viii) What is the source of the following? (Marks 2)
- Q.3 i) Define heterocyclic compounds with an example. (Marks 2)
- Q.3 ii) Give two uses of organic compounds. (Marks 2)
- Q.3 iii) Define functional group with example. (Marks 2)
- Q.3 iv) Define saturated hydrocarbons. Write their general formula. (Marks 2)
- Q.3 v) Give two physical properties of alkynes. (Marks 2)
- Q.3 vi) Write two properties of monosaccharides. (Marks 2)
- Q.3 vii) What is difference between oil and ghee? (Marks 2)
- Q.3 viii) Write the sources and uses of vitamin-D. (Marks 2)
- Q.4 i) Write down two harmful effects of SO₂? (Marks 2)
- Q.4 ii) Write down the names of two secondary pollutants. (Marks 2)
- Q.4 iii) Why is it advised to switch off coal or gas heater before going to sleep? (Marks 2)
- Q.4 iv) Write two physical properties of water. (Marks 2)
- Q.4 v) Write down the causes of hardness in water. (Marks 2)
- Q.4 vi) Write two fractions found in residual oil. (Marks 2)
- Q.4 vii) Define minerals. (Marks 2)
- Q.4 viii) Why small amount of coke is used in smelting process? (Marks 2)
- Q.5 a) Derive equilibrium constant expression for a general reversible chemical reaction. (Marks 5)
- Q.5 b) Write down uses of any four acids. (Marks 4)

Q.6 a) Explain halogenation of alkanes. (Marks 5)

Q.6 b) Define amino acids. Explain amino acids are building blocks of proteins. (Marks 4)

Q.7 a) What is urea? Write raw material and three steps for its preparation. (Marks 5)

Q.7 b) Write four general properties of water. (Marks 4)

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Chemistry Group 2

i) In the beginning the rate of reverse reaction is: (Mark 1)

- A. fast
- B. very fast
- C. moderate
- D. negligible

Answer:

D. negligible

ii) The substances formed during the chemical reaction are called: (Mark

1)

- A. products
- B. reactants
- C. radicals
- D. elements

Answer:

A. products

iii) The conjugate acid of HPO_4^{2-} is: (Mark 1)

- A. H_3PO_4
- B. $\text{H}_2\text{PO}_4^{2-}$
- C. H_2PO_4^-
- D. PO_4^{3-}

Answer:

C. H_2PO_4^-

iv) A reaction between an acid and base produces. (Mark 1)

- A. salt and gas
- B. salt and water
- C. salt and acid
- D. salt and base

Answer:

B. salt and water

v) Coal gas is mixture of (Mark 1)

- A. CO, CH₄, CO₂
- B. CO, H₂, CO₂
- C. CO, CH₄
- D. CO, CH₄, H₂

Answer:

D. CO, CH₄, H₂

vi) About _____ % traces of acetylene are present in coal gas. (Mark 1)

- A. 0.06
- B. 0.07
- C. 0.08
- D. 0.09

Answer:

A. 0.06

vii) Number of amino acids in proteins is

(Mark 1)

- A. 1000
- B. less than 10,000
- C. more than 10,000
- D. 2000

Answer:

C. more than 10,000

viii) Which one of the following is a water soluble vitamin? (Mark 1)

- A. D
- B. C
- C. E
- D. K

Answer:

B. C

ix) _____ gas is the cause of global warming.

(Mark 1)

- A. SO₂ gas
- B. NO₂ gas
- C. O₂ gas
- D. CO₂ gas

Answer:

D. CO₂ gas

x) The quantity of water fit for drinking on the earth is _____ %

:

(Mark 1)

- A. 0.2
- B. 0.4
- C. 0.5
- D. 0.6

Answer:

A. 0.2

xi) Temporary hardness of water can be removed by adding. (Mark 1)

- A. limestone
- B. washing soda
- C. slaked lime
- D. NH₃

Answer:

C. slaked lime

xii) Urea is a nitrogenous fertilizer. It consists of _____ % nitrogen.

(Mark 1)

- A. 26.6
- B. 46.6

C. 56.6

D. 66.6

Answer:

B. 46.6

- Q.2 i) Define irreversible reaction. Give one example. (Marks 2)
- Q.2 ii) Complete the following equation: (Marks 2)
- Q.2 iii) What is equilibrium constant? (Marks 2)
- Q.2 iv) What is meant by the extent of a reaction? (Marks 2)
- Q.2 v) Why BF_3 behave as a Lewis acid? (Marks 2)
- Q.2 vi) Write down two uses of nitric acid. (Marks 2)
- Q.2 vii) Define complex salts. Give one example. (Marks 2)
- Q.2 viii) Write down two uses of pH. (Marks 2)
- Q.3 i) Define condensed formula and give example. (Marks 2)
- Q.3 ii) Write the names of four types of coal. (Marks 2)
- Q.3 iii) Write general formula of carboxyl group and give example. (Marks 2)
- Q.3 iv) Write the name and molecular formula of the simplest alkyne. (Marks 2)
- Q.3 v) Write two uses of Ethene. (Marks 2)
- Q.3 vi) Write two important usages of carbohydrates for our body. (Marks 2)
- Q.3 vii) Write the names of fat-soluble vitamins. (Marks 2)
- Q.3 viii) What are the advantage of water-soluble vitamins? (Marks 2)
- Q.4 i) What is troposphere and where does it exist in atmosphere? (Marks 2)
- Q.4 ii) What is meant by the greenhouse effect? (Marks 2)
- Q.4 iii) What are primary pollutants of air? Give an example. (Marks 2)
- Q.4 iv) What is difference between soft water and hard water? (Mark
s 2)
- Q.4 v) Write two effects of water pollution. (Marks 2)
- Q.4 vi) Write two methods for the prevention of waterborne diseases. (Marks 2)
- Q.4 vii) What meant by gangue? (Marks 2)
- Q.4 viii) What is blister copper? (Marks 2)
- Q.5 a) State the Law of Mass Action and derive the expression for equilibrium constant for a general reaction. (Marks 5)
- Q.5 b) Describe the uses of any four acids. (Marks 4)
- Q.6 a) Write down five sources of Alkanes. (Marks 5)

Q.6 b) Explain the sources and uses of lipids. (Marks 4)

Q.7 a) Write the five advantages of Solvay's process. (Marks 5)

Q.7 b) Explain the methods to remove temporary hardness. (Marks 4)