

# 10<sup>th</sup> Grade Multan Board

## CHEMISTRY

2019

### Group A

#### MCQ SECTION

i) If  $Q_c < K_c$  the direction of reaction will be: (Mark 1)

- A. Forward direction
- B. Backward direction
- C. Equilibrium state
- D. Forward and backward Backward

Answer:

A. Forward direction

ii)  $K_c$  is always equal to: (Mark

1)

- A.  $K_f/K_r$
- B.  $K_r/K_f$
- C.  $R_r/R_f$
- D.  $R_f/R_r$

Answer:

A.  $K_f/K_r$

iii) Acetic acid is used for: (Mark

1)

- A. Flavouring food
- B. Making explosive
- C. Etching designs
- D. Cleaning metals

Answer:

A. Flavouring food

iv) Conjugate base of Sulphuric Acid is: (Mark 1)

- A.  $SO_3^{2-}$
- B.  $S^{2-}$
- C.  $HSO_3^-$
- D.  $HSO_4^-$

Answer:

D.  $HSO_4^-$

v) The Coal which has 80 percent content of Carbon is called: (Mark 1)

- A. Peat
- B. Lignite
- C. Anthracite
- D. Bituminous

Answer:

D. Bituminous

vi) Dehydration of Alcohols can be carried out with:

(Mark 1)

A. NaOH

B. KOH

C. H<sub>2</sub>SO<sub>4</sub>

D. HCl

Answer:

C. H<sub>2</sub>SO<sub>4</sub>

vii) Among the following \_\_\_\_\_ is a Triglyceride:

(Mark 1)

A. Carbohydrates

B. Proteins

C. Lipids

D. Vitamins

Answer:

C. Lipids

viii) The formula of palmitic Acid is:

(Mark 1)

A. C<sub>17</sub>H<sub>35</sub>COOH

B. C<sub>17</sub>H<sub>33</sub>COOH

C. C<sub>17</sub>H<sub>37</sub>COOH

D. C<sub>15</sub>H<sub>31</sub>COOH

Answer:

D. C<sub>15</sub>H<sub>31</sub>COOH

ix) The cause of Global Warming is \_\_\_\_\_ gas.

(Mark 1)

A. CO<sub>2</sub>

B. SO<sub>2</sub>

C. NO<sub>x</sub>

D. O<sub>3</sub>

Answer:

A. CO<sub>2</sub>

x) Ionic compounds are soluble in water due to:

(Mark 1)

A. Hydrogen Bonding

B. Ion-Dipole Forces

C. Dipole-Dipole Forces

D. Dipole-Induced Dipole Forces

Answer:

B. Ion-Dipole Forces

xi) Potable water on earth is only \_\_\_\_\_ of total water on earth:

(Mark 1)

A. 0.2 %

B. 0.6 %

C. 2.1 %

D. 4.0 %

Answer:

A. 0.2 %

xii) The boiling range of Petroleum Ether is:

(Mark 1)

A. 80-170 °C

B. 20-170 °C

C. 30-80 °C

D. 170-250 °C

Answer:

C. 30-80 °C

## SHORT QUESTION SECTION

### Section-B Q.2

- Q.2 i) Why at equilibrium state, reaction does not stop? (Marks 2)
- Q.2 ii) What is the Dynamic Equilibrium State? (Marks 2)
- Q.2 iii) How can you know that a reaction has achieved the equilibrium state? (Marks 2)
- Q.2 iv) How prediction of a direction of reaction is carried out? (Marks 2)
- Q.2 v) Write one use each of the following: (Marks 2)
- Q.2 vi) Write two examples of Double Salts. (Marks 2)
- Q.2 vii) Write two properties of Bases. (Marks 2)
- Q.2 viii) Write Conjugate acid of each of the following: (Marks 2)

### Section-B Q.3

- Q.3 i) Give two basic conditions for an element to exhibit catenation. (Marks 2)
- Q.3 ii) Define Coke. Write its uses. (Marks 2)
- Q.3 iii) Write names of four types of formulae of Organic Compounds. (Marks 2)
- Q.3 iv) Define Unsaturated Hydrocarbons with general formula. (Marks 2)
- Q.3 v) Describe the preparation of Alkanes from Alkyl Halides. (Marks 2)
- Q.3 vi) Define Polysaccharides with an example. (Marks 2)
- Q.3 vii) Write down two commercial uses of Enzymes. (Marks 2)
- Q.3 viii) Give function of "DNA". (Marks 2)

## **Section-B Q.4**

- Q.4 i) Write the names of two acids present in Acid Rain. (Marks 2)**
- Q.4 ii) Give a reaction between Ozone and a Free Radical. (Marks 2)**
- Q.4 iii) Write down two major sources of CO and CO<sub>2</sub>. (Marks 2)**
- Q.4 iv) Why is the water molecule of polar nature? (Marks 2)**
- Q.4 v) Differentiate between Soft and Hard Water. (Marks 2)**
- Q.4 vi) Write the names and formulae of two Copper Ores. (Marks 2)**
- Q.4 vii) What do you know about Blister Copper? (Marks 2)**
- Q.4 viii) What happens when CO<sub>2</sub> is passed through Ammonical brine? (Marks 2)**

## LONG QUESTION SECTION

**Q.5 a) What is the importance of Equilibrium Constant? Explain.**

**(Marks 5)**

**Q.5 b) Write down four physical properties of Acids.**

**(Marks 4)**

**Q.6 a) Define Alkynes also explain two methods of preparation of Alkynes.**

**(Marks**

**2)**

**Q.6 b) What are Polysaccharides? Give their properties.**

**(Marks 4)**

**Q.7 a) Write uses of Diesel Oil and Fuel Oil.**

**(Marks 5)**

**Q.7 b) Which of the qualities make water a best solvent?**

**(Marks 4)**

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## CHEMISTRY

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### Group B

#### MCQ SECTION

i) The value of  $K_c$  depends upon: (Mark 1)

- A. Temperature
- B. Pressure
- C. Volume
- D. Density

Answer:

- A. Temperature

ii) For the following reaction units of  $K_c$  are: (Mark 1)



- A.  $\text{mol}^{-1} \cdot \text{dm}^3$
- B.  $\text{mol dm}^{-3}$
- C.  $\text{mol} \cdot \text{dm}^3$
- D. No unit

Answer:

- D. No unit

iii) Lactic acid occurs

in:

(Mark 1)

- A. Rancid butter
- B. Sour milk
- C. Grapes
- D. Apple

Answer:

- B. Sour milk

iv) The colours of  $\text{Fe}(\text{OH})_3$  is: (Mark

1)

- A. Brown
- B. White
- C. Blue
- D. Dirty green

Answer:

- A. Brown

v) Among the following \_\_\_\_\_ is the hardest coal. (Mark 1)

- A. Peat
- B. Lignite

C. Bituminous

D. Anthracite

Answer:

D. Anthracite

vi) Reduction of Alkyl Halides take place in the presence of: (Mark 1)

A. Na / *dil* HCl

B. Ni / *dil* HCl

C. Zn / *dil* HCl

D. Pt

Answer:

C. Zn / *dil* HCl

vii) Maltose is generally found in: (Mark 1)

A. Milk

B. Cereals

C. Dairy products

D. Cotton

Answer:

B. Cereals

viii) Polymerization of Amino acids yields: (Mark 1)

A. Carbohydrates

B. Lipids

C. Proteins

D. Sugar

Answer:

C. Proteins

ix) Among the following \_\_\_\_\_ gas is known as life gas for plants.

(Mark 1)

A. O<sub>3</sub>

B. O<sub>2</sub>

C. CO<sub>2</sub>

D. N<sub>2</sub>

Answer:

C. CO<sub>2</sub>

x) Among the following disease \_\_\_\_\_ causes liver inflammation.

(Mark 1)

A. Jaundice

B. Dysentery

C. Cholera

D. Hepatitis

Answer:

D. Hepatitis

xi) Percentage of water in human body is: (Mark 1)



- A. 68 %
- B. 69 %
- C. 70 %
- D. 71 %

Answer:

C. 70 %

xii) Chalco Pyrite is an ore of:

(Mark

1)

- A. Copper
- B. Silver
- C. Iron
- D. Zinic

Answer:

A. Copper

## SHORT QUESTION SECTION

### Section-B Q.2

- Q.2 i) What are reversible reactions? Give an example. (Marks 2)
- Q.2 ii) What is equilibrium constant? Write its units. (Marks 2)
- Q.2 iii) Write any two macroscopic characteristics of dynamic equilibrium. (Marks 2)
- Q.2 iv) What meant by extent of a reaction? (Marks 2)
- Q.2 v) State limitations of Arrhenius concept. (Marks 2)
- Q.2 vi) Write the uses of Nitric acid and Benzoic acid. (Marks 2)
- Q.2 vii) Write names and formulae of two double salts. (Marks 2)
- Q.2 viii) Write names of two acids found in apple and citrus fruits. (Marks 2)

### Section-B Q.3

- Q.3 i) What is meant by Functional group? Give an example. (Marks 2)
- Q.3 ii) Give one difference between Aldehydes and Ketones. (Marks 2)
- Q.3 iii) Write four uses of Natural gas. (Marks 2)
- Q.3 iv) What is meant by hydrogenation of Alkenes. (Marks 2)
- Q.3 v) Write two uses of Acetylene. (Marks 2)
- Q.3 vi) Write two sources and two uses of proteins. (Marks 2)
- Q.3 vii) What is Polysaccharides? Give an example. (Marks 2)
- Q.3 viii) What is hydrogenation of Vegetable oil? (Marks 2)

### Section-B Q.4

- Q.4 i) Write composition of dry air. (Marks 2)
- Q.4 ii) Define Acid rain. (Marks 2)
- Q.4 iii) Describe two serious effects of Ozone depletion. (Marks 2)
- Q.4 iv) Why water is called a universal solvent? (Marks 2)
- Q.4 v) What is Capillary action? (Marks 2)

**Q.4 vi) Define metallurgy.**

**(Marks**

**2)**

**Q.4 vii) Write two uses of Urea.**

**(Marks**

**2)**

**Q.4 viii) Write names of different metallurgical operations.**

**(Marks 2)**

## LONG QUESTION SECTION

**Q.5 a) Write five macroscopic properties of dynamic equilibrium.**

**(Marks 5)**

**Q.5 b) Explain Lewis concept of Acids and Bases with examples.**

**(Marks 4)**

**Q.6 a) Write five sources of Alkanes.**

**(Marks 5)**

**Q.6 b) Write one source and one use of each of Vitamin A and Vitamin D.**

**(Marks 4)**

**Q.7 a) How is Urea manufactured? Explain showing the flow sheet diagram.**

**(Marks 5)**

**Q.7 b) Write methods for removal of permanent hardness of water with equations.**

**(Marks 4)**