

LAHORE BOARD

GRADE 10

CHEMISTRY

2016 GROUP 1

MCQ's

Section A-(MCQs)

i) Reaction between acid and base forms: (Mark 1)

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

Answer:

- A. Salt and water

ii) Alkenes are prepared from alcohols by a process called: (

Mark 1)

- A. Dehydrogenation
- B. Dehalogenation
- C. Dehydration
- D. Dehydrohalogenation

Answer:

- C. Dehydration

iii) Main component of natural gas is: (Mark 1)

- A. Methane
- B. Propane
- C. Butane
- D. Propyne

Answer:

- A. Methane

iv) Thousand of amino acids polymerize to form: (Mark 1)

- A. Carbohydrates
- B. Proteins
- C. Lipids
- D. Vitamins

Answer:

- B. Proteins

v) If any liquid has pH=7, it will be:

(Mark 1)

- A. Colourless and odorless
- B. Boil at 100° and freeze at 0°C
- C. Neutral
- D. Aqueous solution

Answer:

- C. Neutral

vi) Which one of the following is fat-soluble vitamin:

(Mark 1)

- A. A
- B. E
- C. K
- D. All of these

Answer:

- D. All of these

vii) A complete reaction in which:

(Mark 1)

- A. All the reactants convert into products
- B. All the reactions do not convert into products
- C. Half reactants convert into products
- D. Only 10% reactants convert into products

Answer:

- A. All the reactants convert into products

viii) Matte is a mixture of:

(Mark 1)

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

Answer:

- C. Cu₂S and FeS

ix) Such reactions which continue in both directions are called:

(Mark

1)

- A. Irreversible
- B. Reversible

- C. Non-reactive
- D. Dynamic

Answer:

- B. Reversible

x) Which one of the following diseases causes liver inflammation:

(

Mark 1)

- A. Typhoid
- B. Jaundice
- C. Cholera
- D. Hepatitis

Answer:

- D. Hepatitis

xi) Depending upon temperature variation, atmosphere is divided into how many regions:

(Mark 1)

- A. 1
- B. 2
- C. 3
- D. 4

Answer:

- D. 4

xii) Permanent hardness is removed by adding:

(Mark 1)

- A. Sodium zeolite
- B. Soda line
- C. Lime water
- D. Quick lime

Answer:

- A. Sodium zeolite

Q.2 i) How can you know that a reaction has achieved an equilibrium state?

(Marks 2)

Q.2 ii) What is relation between active mass and rate of reaction?

(Marks 2)

Q.2 iii) Define pH. What is the pH of pure water?

(Marks 2)

Q.2 iv) Name two acids used in the manufacture of fertilizers.

(

Marks 2)

Q.2 v) Why H^+ ion acts as a Lewis acid?

(Marks 2)

- Q.2 vi) How is coal formed? (Marks 2)
- Q.2 vii) What is the importance of natural gas? (Marks 2)
- Q.2 viii) Write the classification of coal. (Marks 2)
- Q.3 i) What are saturated hydrocarbons? Give example. (Marks 2)
- Q.3 ii) Give process of hydrogenation of alkenes with chemical equation. (Marks 2)
- Q.3 iii) Define carbohydrates. Write their general formula. (Marks 2)
- Q.3 iv). What are polysaccharides? Give an example. (Marks 2)
- Q.3 v) Write the general formula of amino acid. (Marks 2)
- Q.3 vi) Write the chemical formulas of palmitic acid and stearic acid. (Marks 2)
- Q.3 vii) What are the major constituents of troposphere? (Marks 2)
- Q.3 viii) How CO₂ is responsible for heating up atmosphere. (Marks 2)
- Q.3 ix) How ozone layer forms in stratosphere? (Marks 2)**
- Q.4 i) How water rises in plants? (Marks 2)
- Q.4 ii) What are the causes of hardness of water? (Marks 2)
- Q.4 iii) What are the reasons of water-borne diseases? (Marks 2)
- Q.4 iv) Give a method to remove permanent hardness of water. (Marks 2)
- Q.4 v) What is the difference between crude oil and residual oil? (Marks 2)
- Q.4 vi) . What is the principle of Solvay's process? (Marks 2)
- Q.4 vii) What is the role of pine oil in the froth flotation process? (Marks 2)
- Q.4 viii) Define petroleum. (Marks 2)
- Q.5 a) Differentiate between forward and reverse reaction. (Marks 4)
- Q.5 b) Differentiate between acidic and basic acids. (Marks 3)
- Q.6 a) Give four properties of homologous series. (Marks 4)
- Q.6 b) Write three sources of alkanes. (Marks 3)

Q.7 b) Describe effects of acid rain.

(Marks 3)

Q.8 a) Write about cholera and cryptosporidium.

(Marks 4)

Q.8 b) Write about steps for the preparation of Urea.

(Marks 3)

Q.9 a) Explain ammonia recovery process and preparation of carbon dioxide gas in Solvay's process.

(Marks 4)

Q.9 b) What is greenhouse effect? Explain it.

(Marks 3)

Q.10 a i) Write down the apparatus to determine the molarity of the given NaOH solution by volumetric analysis.

(Marks 2)

Q.10 a ii) Write down the procedure to identify metal ions by flame test.

(Marks 3)

Q.10 b i) Write the required apparatus to identify ketone by using 2,4 dinitrophenyl hydrazine test.

(Marks 2)

Q.10 b ii) Give procedure to identify ketone by using 2, 4 dinitrophenyl hydrazine test.

(Marks 3)

Q.10 c i) Write the required apparatus to identify the saturated and unsaturated organic compounds by potassium permanganate test.

(Marks 2)

Q.10 c ii) Write down the procedure to identify phenol using ferric chloride test.

(Marks 3)

LAHORE BOARD

GRADE 10

CHEMISTRY

2016 GROUP 2

MCQ's

Section A-(MCQs)

i) The colour of HI is:

(Mark 1)

- A. Orange
- B. Purple
- C. Red
- D. Colourless

Answer:

- D. Colourless

ii) When $Q_c < K_c$, the reaction goes in:

(Mark 1)

- A. Forward
- B. Reverse
- C. Equilibrium
- D. None

Answer:

- A. Forward

iii) Which one of the following is acidic salt:

(Mark 1)

- A. KHSO_4
- B. $\text{Al(OH)}_2\text{Cl}$
- C. NaCl
- D. Ca(OCl)Cl

Answer:

- A. KHSO_4

iv) Which one of the following is Lewis base:

(Mark 1)

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

Answer:

B. NH_3

v) Which one of the following does not contain starch: (Mark 1)

A. Sugarcane

B. Barley

C. Maize

D. Potatoes

Answer:

A. Sugarcane

vi) Oxidation of alkenes produce: (Mark 1)

A. Glyoxal

B. Oxalic acid

C. Glycol

D. Formic acid

Answer:

C. Glycol

vii) The nitrogen present in urea is used by plants to synthesize:

(Mark 1)

A. Sugar

B. Proteins

C. Fats

D. DNA

Answer:

B. Proteins

viii) Which one of the following ions does not cause hardness in water: (Mark 1)

A. Ca^{2+}

B. Mg^{2+}

C. SO_4^{2-}

D. Na^+

Answer:

D. Na^+

ix) Temporary hardness is because of: (Mark 1)

A. $\text{Ca}(\text{HCO}_3)_2$

B. CaCO_3

C. MgCO_3

D. MgSO_4

Answer:

A. $\text{Ca}(\text{HCO}_3)_2$

x) Which gas protects the earth's surface from ultraviolet radiations:

(Mark 1)

A. CO_2

B. CO

C. O_3

D. N_2

Answer:

C. O_3

xi) Which of the following is fat-soluble vitamin:

(Mark 1)

A. A

B. E

C. K

D. All of these

Answer:

D. All of these

xii) Which one of the following is triglyceride:

(Mark 1)

A. Carbohydrates

B. Proteins

C. Vitamins

D. Lipids

Answer:

D. Lipids

Q.2 i) Write uses of atmospheric gases in the manufacture of chemicals?

(Marks 2)

Q.2 ii) What are the irreversible reactions? Give a few characteristics of them.

(Marks 2)

Q.2 iii) Write uses of sulphuric acid.

(Marks 2)

Q.2 iv) A solution of HCl is 0.01 M. What is its pH value?

(Marks 2)

Q.2 v) Write uses of CaCl_2 .

(Marks 2)

Q.2 vi) Write four sources of organic compounds(Only names).

(Marks 2)

Q.2 vii) Define functional group with an example.

(Marks 2)

Q.2 viii) What are heterocyclic compounds? Give an example. (Marks 2)

Q.3 i) State one important use of each: (Marks 2)

a. Chloroform b. carbon tetrachloride

Q.3 ii) How are alkyl halides reduced? (Marks 2)

Q.3 iii) Give the types of vitamins . (Marks 2)

Q.3 iv) How are proteins formed? (Marks 2)

Q.3 v) Draw the structural formula of glucose. (Marks 2)

Q.3 vi) Give the balanced equation for the hydrolysis of sucrose.

(Marks 2)

Q.3 vii) What do you mean by atmosphere? (Marks 2)

Q.3 viii) Give two effects of global warming (Marks 2)

Q.3 ix) How is acid rain produced? (Marks 2)

Q.4 i) Describe the difference between temporary and permanent hardness of water. (Marks 2)

Q.4 ii) Write two disadvantages of hard water? (Marks 2)

Q.4 iii) What are water-borne diseases of water? (Marks 2)

Q.4 iv) What is fluorosis ? (Marks 2)

Q.4 v) What is the difference between minerals and ores? (Marks 2)

Q.4 vi) Define metallurgy. (Marks 2)

Q.4 vii) How is ammoniacal brine prepared? (Marks 2)

Q.4 viii) Write two advantages of Solvay's process. (Marks 2)

Q.5 a) Define law of mass action and derive the general expression for equilibrium constant for a general reaction . (Marks 4)

Q.5 b) Write down the reactions of acids with metals, carbonates and bicarbonates. (Marks 3)

Q.6 a) Write down the composition and uses of different types of coal. (Marks 4)

Q.6 b) Write down any three physical properties of alkenes. (Marks 3)

Q.7 a) Define four uses of carbohydrates. (Marks 4)

Q.7 b) Describe any three effect of "Global Warming". (Marks 3)

Q.8 a) Write down the methods to remove the permanent hardness of water. (Marks 4)

Q.8 b) Describe the importance of urea. (Marks 3)

Q.9 a) Write a note on fractional distillation of petroleum (Marks 4)

Q.9 b) Describe composition of atmosphere. (Marks 3)

Q.10 a) i. Write the apparatus required to standardize hydrochloric and acid solution. (Marks 3)

a) ii. Write the procedure of experiment to find molarity of sodium hydroxide solution by volumetric analysis. (Marks 2)

Q.10 b) i. Write apparatus for the experiment to identify things as acidic, basic or neutral. (Marks 2)

b) ii. Give procedure to identify ketones by 2,4-dinitrophenyl hydrazine test. (Marks 3)

Q.10 c) i. Write the apparatus required to identify phenol by ferric chloride test. (Marks 2)

c) ii. Write the procedure for the experiment to identify saturated and unsaturated hydrocarbons by KMnO_4 test. (Marks 3)

c) ii. Write the procedure for the experiment to identify saturated and unsaturated hydrocarbons by KMnO_4 test. (Marks 3)