

LAHORE BOARD

GRADE 10

CHEMISTRY

2019 GROUP 1

MCQ's

Section-A (MCQs)

i) The water of crystallization is responsible for the: (Mark 1)

- A. Melting points of crystals
- B. Boiling points of crystals
- C. Shapes of crystals
- D. Transition point of crystals

Answer:

- C. Shapes of crystals

ii) Which of the following salts makes the water permanently hard: (Mark 1)

- A. NaHCO_3
- B. Na_2CO_3
- C. $\text{Ca}(\text{HCO}_3)_2$
- D. CaSO_4

Answer:

- D. CaSO_4

iii) Which vitamin is fat soluble: (Mark 1)

- A. C
- B. K
- C. B
- D. B complex

Answer:

- B. K

iv) A reverse reaction is one: (Mark 1)

- A. Which proceeds from left to right
- B. In which reactants react to form products
- C. Which slows down gradually

D. Which speeds up gradually

Answer:

D. Which speeds up gradually

v) Formula of palmitic acid is:

(Mark 1)

A. $C_{17}H_{35}COOH$

B. $C_{15}H_{32}COOH$

C. $C_{15}H_{31}COOH$

D. $C_{16}H_{31}COOH$

Answer:

C. $C_{15}H_{31}COOH$

vi) Which one of the following is not a fraction of petroleum: (Mark 1)

A. Petrol

B. Alcohol

C. Diesel oil

D. Kerosene oil

Answer:

B. Alcohol

vii) Lactic acid is found in:

(Mark 1)

A. Apple

B. Sour Milk

C. Urine

D. Lemon

Answer:

B. Sour Milk

viii) Wood contains carbon about:

(Mark 1)

A. 40%

B. 50%

C. 60%

D. 70%

Answer:

A. 40%

ix) The reduction of alkyl halides takes place in the presence of:

(Mark 1)

A. Mg/HCl

B. Cu/HCl

C. Na/HCl

D. Zn/HCl

Answer:

D. Zn/HCl

x) Which one of the following diseases causes severe diarrhea and can be fatal: (Mark 1)

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

Answer:

- C. Cholera

xi) The unit of molar concentration is: (Mark 1)

- A. mol dm^{-3}
- B. mol dm^{-2}
- C. mol dm^{-1}
- D. $\text{mol}^{-1} \text{dm}^{-1}$

Answer:

- A. mol dm^{-3}

xii) Which is secondary pollutant: (Mark 1)

- A. H_2SO_4
- B. CO_2
- C. CO
- D. SO_3

Answer:

- A. H_2SO_4

Q.2 i) What is meant by the term "chemical equilibrium state"? (Marks 2)

Q.2 ii) Define irreversible reaction. give an example (Marks 2)

Q.2 iii) What do you mean by extent of reaction? (Marks 2)

Q.2 iv) Write down two macroscopic characteristics of forward reaction. (Marks 2)

Q.2 v) How H^+ ion acts as a Lewis acid? (Marks 2)

Q.2 vi) Define pH? what is pH of pure water? (Marks 2)

Q.2 vii) Write the name and formulae of two mineral acid. (Marks 2)

Q.2 viii) Differentiate between conjugate acid and conjugate base. (Marks 2)

Q.3 i) What is meant by isomerism? (Marks 2)

- Q.3 iii) Write any two uses of organic compounds. (Marks 2)
- Q.3 iv) Why are the alkenes called olefins? (Marks 2)
- Q.3 v) Differentiate between saturated and unsaturated hydrocarbons. (Marks 2)
- Q.3 vi) Write two characteristics of monosaccharides. (Marks 2)
- Q.3 vii) Write two points of importance of vitamins. (Marks 2)
- Q.3 viii) What is function of DNA? (Marks 2)
- Q.4 i) Write down names of stratosphere's regions. (Marks 2)
- Q.4 ii) Write down two effects of SO_2 . (Marks 2)
- Q.4 iii) Differentiate between primary and secondary air pollutants. (Marks 2)
- Q.4 iv) What is jaundice? Give its two symptoms. (Marks 2)
- Q.4 v) Write down two properties of water. (Marks 2)
- Q.4 vi) What is meant by minerals? (Marks 2)
- Q.4 vii) How is ammonia prepared for the synthesis of urea? (Marks 2)
- Q.4 viii) Write down two uses of petroleum ether. (Marks 2)
- Q.5 a) How the direction of reaction can be predicted by the numeric value of the equilibrium constant? (Marks 5)
- Q.5 b) Write the concept of Bronsted Lowry about acids and bases. Give examples. (Marks 4)
- Q.6 a) Write any five uses of ethane. (Marks 5)
- Q.6 b) Explain any four sources of lipids. (Marks 4)
- Q.7 a) Write down five advantages of Solvay's process. (Marks 5)
- Q.7 b) Describe two methods for the removal of permanent hardness of water. (Marks 4)

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GRADE 10

CHEMISTRY

2019 GROUP 2

MCQ's

Section-A (MCQs)

i) The colour of hydrogen iodide (HI) is: (Mark 1)

- A. Black
- B. purple
- C. colourless
- D. blue

Answer:

- C. colourless

ii) In the lime kiln the reaction goes to completion because of: (Mark 1)



- A. CaO is more stable than CaCO₃
- B. CaO is not dissociated
- C. Low temperature
- D. CO₂ escapes continuously

Answer:

- D. CO₂ escapes continuously

iii) If the value of pH solution is less than seven it will be : (Mark 1)

- A. A base
- B. An alkali
- C. An acid
- D. A neutral solution

Answer:

- C. An acid

iv) Lactic acid is present in: (Mark 1)

- A. Lemon
- B. Orange
- C. Apple
- D. Sour milk

Answer:

D. Sour milk

v) Pitch is black residue of:

(Mark 1)

A. Coal gas

B. Coke

C. Coal tar

D. Coal

Answer:

C. Coal tar

vi) Dehydration of alcohols can be carried out with:

(Mark 1)

A. HCl

B. H_2SO_4

C. KOH

D. NaOH

Answer:

B. H_2SO_4

vii) Thousands of amino acids polymerize to form:

(Mark 1)

A. Vitamins

B. carbohydrates

C. Proteins

D. Lipids

Answer:

C. Proteins

viii) The most important oligosaccharide is:

(Mark 1)

A. Glucose

B. Sucrose

C. Maltose

D. Fructose

Answer:

B. Sucrose

ix) About 99% atmosphere's mass lies within:

(Mark 1)

A. 35 Kilometer

B. 30 Kilometer

C. 15 Kilometer

D. 11 Kilometer

Answer:

B. 30 Kilometer

x) Rapid growth of algae in water bodies is because of detergent having:

(Mark 1)

- A. Sulphate salts
- B. Phosphate salts
- C. Sulphonic acid salts
- D. Carbonate salts

Answer:

B. Phosphate salts

xi) Which one of the following ion causes hardness in water: (Mark 1)

- A. Mg^{2+}
- B. Al^{3+}
- C. Na^+
- D. Fe^{2+}

Answer:

A. Mg^{2+}

xii) When $NaHCO_3$ is heated it forms: (Marks 2)

- A. CaO
- B. $CaCO_3$
- C. CO_2
- D. $Ca(OH)_2$

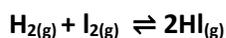
Answer:

C. CO_2

Q.2 i) Define forward and reverse reaction. (Marks 2)

Q.2 ii) What do you mean by equilibrium constant? (Marks 2)

Q.2 iii) Write the equilibrium constant expression for the reaction: (Marks 2)



Q.2 iv) What is dynamic equilibrium state? (Marks 2)

Q.2 v) Write limitation of Arrhenius concept. (Marks 2)

Q.2 vi) Write any two physical properties of bases. (Marks 2)

Q.2 vii) Define neutralization reaction. Give an example. (Marks 2)

Q.2 viii) What are mixed salts? Give an example. (Marks 2)

Q.3 i) Write down different types of coal. (Marks 2)

Q.3 ii) What is isomerism? Give an example. (Marks 2)

Q.3 iii) What is structural formula? Give an example. (Marks 2)

- Q.3 iv) What are closed chain hydrocarbons? Give an example. (Marks 2)
- Q.3 vi) Name two diseases caused by deficiency of vitamin A. (Marks 2)
- Q.3 vii) Where are proteins found? (Marks 2)
- Q.3 viii) What is the difference between glucose and fructose? (Marks 2)
- Q.4 i) Write the names of two primary air pollutants. (Marks 2)
- Q.4 ii) Write two effects of ozone depletion. (Marks 2)
- Q.4 iii) What is the temperature range of the stratosphere, mesosphere, and thermosphere? (Marks 2)
- Q.4 iv) What is the reason for jaundice and typhoid? (Marks 2)
- Q.4 v) Write two disadvantages of hard water. (Marks 2)
- Q.4 vi) Name any two processes which are involved in metallurgy for the extraction of a metal in its pure state from its ore. (Marks 2)
- Q.4 vii) Write the formulae of matte and urea. (Marks 2)
- Q.4 viii) Write two advantages of Solvay's process. (Marks 2)
- Q.5 a) State the Law of Mass Action and derive the equilibrium constant expression for a general reaction. (Marks 5)
- Q.5 b) Explain the Lewis concept of acids and bases. (Marks 4)
- Q.6 a) Write down the uses of acetylene. (Marks 5)
- Q.6 b) Write down the sources and diseases due to deficiency of some fat-soluble vitamins. (Marks 4)
- Q.7 a) Explain the process of smelting with reference to copper. (Marks 5)
- Q.7 b) Write two methods for the removal of permanent hardness of water. (Marks 4)