

# LAHORE BOARD

## GRADE 9

### CHEMISTRY

#### 2018 GROUP 1

#### MCQ'S

**i) The example of a solution of a solid solute in a solid solvent is:**

**(Mark 1)**

- A. Fog
- B. Brass
- C. Cheese
- D. Air

**Answer:**

B. Brass

**ii) The most common example of corrosion is:**

**(Mark 1)**

- A. Rusting of iron
- B. Chemical decay
- C. Rusting of aluminium
- D. Rustin of tin

**Answer:**

A. Rusting of iron

**iii) The boiling point of sodium chloride is:**

**(Mark 1)**

- A. 800°C
- B. 850°C
- C. 1412°C
- D. 1413°C

**Answer:**

D. 1413°C

**iv) Formula of rust**

**is:**

**(Mark 1)**

- A.  $\text{FeO}_3$
- B.  $\text{Fe}(\text{OH})_3 \cdot n\text{H}_2\text{O}$
- C.  $\text{Fe}(\text{OH})_3$
- D.  $\text{Fe}_2\text{O}_3 \cdot n\text{H}_2\text{O}$

**Answer:**

D.  $\text{Fe}_2\text{O}_3 \cdot n\text{H}_2\text{O}$

**v) Which one of the following element is found in much abundance in earth's**

**crust:**

**(Mark 1)**

- A. Oxygen
- B. Aluminium
- C. Silicon
- D. Argon

**Answer:**

- A. Oxygen

**vi) Which pair of compounds is soluble:**

**(Mark 1)**

- A. Ether and water
- B. KCl and water
- C. Benzene and water
- D. Petrol and water

**Answer:**

- B. KCl and water

**vii) Sub-shell 'P' can have maximum number of electrons:**

**(Mark 1)**

- A. 4
- B. 6
- C. 8
- D. 10

**Answer:**

- B. 6

**viii) Which device is used to measure atmospheric pressure:**

**(Mark 1)**

- A. Barometer
- B. Manometer
- C. Potometer
- D. Galvanometer

**Answer:**

- A. Barometer

**ix) The electronegativity of fluorine is:**

**(Mark 1)**

- A. 3.2
- B. 3.8
- C. 4.0
- D. 3.5

**Answer:**

- C. 4.0

**x) The base of modern periodic table is:**

**(Mark 1)**

- A. Mass number
- B. Avogadro's number
- C. Atomic number
- D. Quantum number

**Answer:**

- C. Atomic number

**xi) The heaviest metal**

**is:**

**(Mark 1)**

- A. Iron
- B. Platinum
- C. Osmium
- D. Lead

**Answer:**

- C. Osmium

**xii) Methane is an example of:**

**(Mark**

**1)**

- A. Single covalent bond
- B. Double covalent bond
- C. Triple covalent bond
- D. Dative covalent bond

**Answer:**

- A. Single covalent bond

**Q.2 i) Define nuclear chemistry.**

**(**

**Marks 2)**

**Q.2 ii) Differentiate between physical properties and chemical properties.**

**(Mar**

**ks 2)**

**Q.2 iii) Define symbols of elements.**

**(Marks**

**2)**

**Q.2 iv) Explain the treatment of cancer by radiotherapy.**

**(Marks 2)**

**Q.2 v) Explain the uses of U-235 in power generation.**

**(Marks 2)**

**Q.2 vi) Define atomic radius and give example.**

**(Marks**

**2)**

**Q.2 vii) Why ionization energy increases from left to right in a period?**

**(Marks 2)**

**Q.2 viii) Write down the name of elements found in second period.**

**(Marks 2)**

**Q.3 i) Why do atoms react?**

**2)**

**(Marks**

**Q.3 ii) Why does ice float on water?**

**2)**

**(Marks**

**Q.3 iii) Ionic compounds are solids. Justify.**

**2)**

**(Marks**

**Q.3 iv) In which form sulphur exists at 100°C?**

**2)**

**(Marks**

**Q.3 v) What is diffusion in gases? Give an example.**

**2)**

**(Marks**

**Q.3 vi) Why do we stir paints thoroughly before using?**

**(Marks 2)**

**Q.3 vii) What do you mean by % Volume / Volume?**

**2)**

**(Marks**

**Q.3 viii) How will you test whether given solution is a colloidal solution**

**or**

**not?**

**2)**

**(Marks**

**Q.4 i) What are redox reactions?**

**2)**

**(Marks**

**Q.4 ii) What is meant by a reducing agent?**

**2)**

**(Marks**

**Q.4 iii) Define oxidation in terms of oxygen. Give an example.**

**(Marks 2)**

**Q.4 iv) Calculate the oxidation number of "N" in  $\text{AgNO}_3$  and  $\text{HNO}_2$ .**

**(Marks 2)**

**Q.4 v) Write two applications of gold. (Marks 2)**

**Q.4 vi) Give occurrence of alkali metals and alkaline earth metals. (Marks 2)**

**Q.4 vii) Write any two chemical properties of non-metals. (Marks 2)**

**Q.4 viii) What is trend of electropositive character of metals in groups and periods? (Marks 2)**

**Q.5 a) Write five properties of cathode rays. (Marks 5)**

**Q.5 b) Write four differences between molecule and molecular ion. (Marks 4)**

**Q.6 a) Write the properties of covalent compounds. (Marks 5)**

**Q.6 b) What is allotropy? What are its reasons? Explain transition temperature also. (Marks 4)**

**Q.7 a) Discuss electrolysis of water. (Marks 5)**

**Q.7 b) Give the four characteristics of colloid. (Marks 4)**

# LAHORE BOARD

## GRADE 9

### CHEMISTRY

#### 2018 GROUP 2

#### MCQ'S

**i) The molar mass of  $\text{H}_2\text{SO}_4$  is:**

**(Mark**

**1)**

A. 9.8 amu

B. 98 amu

C. 98 gm

D. 9.8 gm

**Answer:**

C. 98 gm

**ii) Which one of the following scientists discovered proton:**

**(Mark 1)**

A. J.J. Thomson

B. Goldstein

C. Rutherford

D. Neil Bohr

**Answer:**

B. Goldstein

**iii) The number of elements present in third period of modern periodic table**

**is:**

**(Mark 1)**

A. 2

B. 8

C. 18

D. 32

**Answer:**

B. 8

**iv) In halogens, which is high electronegativity element: (Mark 1)**

- A. Iodine
- B. Bromine
- C. Chlorine
- D. Fluorine

**Answer:**

D. Fluorine

**v) The bond formed between two non-metals is expected to be:**

**(Mark 1)**

- A. Metallic bond
- B. Covalent bond
- C. Ionic bond
- D. Coordinate covalent bond

**Answer:**

B. Covalent bond

**vi) Ice floats on water because: (Mark 1)**

- A. Ice is amorphous in nature
- B. Ice is denser than water
- C. Water molecules move more randomly
- D. Water is denser than ice

**Answer:**

D. Water is denser than ice

**vii) One atmospheric pressure is equal to \_\_\_ Pascals (Mark 1)**

- A. 10325
- B. 101325
- C. 10523
- D. 106075

**Answer:**

B. 101325

**viii) Which one of the following is suspension: (Mark 1)**

- A. Milk of magnesia
- B. Sugar solution
- C. Ink
- D. Milk

**Answer:**

A. Milk of magnesia

**ix) Mist is an example**

**of:**

**(Mark 1)**

- A. Liquid in gas
- B. Gas in liquid
- C. Solid in gas
- D. Gas in solid

**Answer:**

A. Liquid in gas

**x) The spontaneous reaction takes place in a \_\_\_ cell**

**(Mark**

**1)**

A. Nelson cell

B. Down's cell

C. Electrolytic cell

D. Galvanic cell

**Answer:**

D. Galvanic cell

**xi) Which one of the following solution is non-electrolyte:**

**(Mark 1)**

A. Solution of  $H_2SO_4$

B. Sugar solution

C. Lime solution

D. Solution of NaCl

**Answer:**

B. Sugar solution

**xii) The most abundant metal is:**

**(Mark**

**1)**

A. Aluminium

B. Gold

C. Silver

D. Platinum

**Answer:**

A. Aluminium

**Q.2 i) Define Physical Chemistry.**

**(Marks**

**2)**

**Q.2 ii) Write the chemical formula of water and sugar.**

**(Marks**

**2)**

**Q.2 iii) Define mixture with an example.**

**(Marks**

**2)**

**Q.2 iv) What is the nature of charge on Cathode rays?**

**(Marks 2)**

**Q.2 v) How is U-235 used for power generation?**

**(Marks 2)**

**Q.2 vi) Define electronegativity with an example.**

**(Marks 2)**



**Q.2 vii) Define shielding effect. (Marks 2)**

**Q.2 viii) What is the trend of electron affinity in a group and period?**

**(Marks 2)**

**Q.3 i) Differentiate between donor atom and acceptor atom. (Marks 2)**

**Q.3 ii) Define a single covalent bond with an example. (Marks 2)**

**Q.3 iii) What is meant by coordinate covalent compounds? (Marks 2)**

**Q.3 iv) Define melting point. (Marks 2)**

**Q.3 v) Evaporation causes cooling. Why? (Marks 2)**

**Q.3 vi) Identify as colloids and suspension from the following: paints, jelly, milk and chalk in water. (Marks 2)**

**Q.3 vii) Define an unsaturated solution. (Marks 2)**

**Q.3 viii) Write name of two non-polar solvents. (Marks 2)**

**Q.4 i) Define reduction on the basis of electron and give example.**

**(Marks 2)**

**Q.4 ii) Define non-electrolytes and give examples. (Marks 2)**

**Q.4 iii) Where do the electron flow from Zn electrode in Daniel Cell?**

**(Marks 2)**

**Q.4 iv) Write the redox reaction taking place during the electroplating of chromium. (Marks 2)**

**Q.4 v) Write down any two physical properties of metals. (Marks 2)**

**Q.4 vi) Write down the name of noble metals. (Marks 2)**

**Q.4 vii) Describe the non-metallic character in group and period of the periodic table. (Marks 2)**

**Q.4 viii) In bright sunlight, how  $\text{Cl}_2$  and  $\text{CH}_4$  react? (Marks 2)**

**Q.5 a) Write five differences between Rutherford's atomic theory and Bohr's atomic theory. (Marks 5)**

**Q.5 b) Describe four types of molecules with examples. (Marks 4)**

**Q.6 a) What is chemical bond? Why do atoms form chemical bond? (Marks 5)**

**Q.6 b) State Charle's Law. Derive its mathematical formula. (Marks 4)**

**Q.7 a) What is oxidation state or oxidation number? Write its any four rules. (Marks 5)**

**Q.7 b) Write any four characteristics of suspension. (Marks 4)**