

FAISALABAD BOARD

GRADE 9

CHEMISTRY

2019 GROUP 1

Lesson 1 of 32

Section-A (MCQs)

i) How many numbers of moles are equivalent to 8 grams of CO₂:
(Mark 1)

A. 0.15

B. 0.18

C. 0.21

D. 0.24

Answer:

B. 0.18

ii) Which results in the discovery of protons: (Mark 1)

A. Cathode rays

B. Canal rays

C. X-rays

D. Alpha rays

Answer:

B. Canal rays

iii) The amount of energy given out when an electron is added to an atom is called:
(Mark 1)

- A. Lattice energy
- B. Ionization energy
- C. Electronegativity
- D. Electron affinity

Answer:

- D. Electron affinity

iv) How many blocks are there in the modern periodic table of elements:
(Mark 1)

- A. 2
- B. 4
- C. 6
- D. 8

Answer:

- B. 4

v) Transfer of electrons between atoms results in: (Mark 1)

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

Answer:

- B. Ionic bonding

vi) Which pair has polar Covalent bond:

(Mark 1)

- A. O₂ and Cl₂
- B. H₂O and N₂
- C. H₂O and C₂H₂
- D. H₂O and HCl

Answer:

- D. H₂O and HCl

vii) How many times are the liquids denser than gases:

(Mark 1)

- A. 100
- B. 1000
- C. 10,000
- D. 100,000

Answer:

- B. 1000

viii) The example of colloid is:

(Mark 1)

- A. Jelly
- B. Chalk in water
- C. Paints
- D. Milk in magnesia

Answer:

- A. Jelly

ix) Molarity is the number of moles of solute dissolved in:

(Mark 1)

- A. 1 Kg of solution
- B. 100g of solvent
- C. 1 dm³ of solvent
- D. 1 dm³ of solution

Answer:

- D. 1 dm³ of solution

x) Spontaneous chemical reactions take place in: (Mark 1)

- A. Electrolytic cell
- B. Galvanic cell
- C. Nelson cell
- D. Downs cell

Answer:

- B. Galvanic cell

xi) The formula of rust is: (Mark 1)

- A. Fe₂O₃.nH₂O
- B. Fe₂O₃
- C. Fe(OH)₃nH₂O
- D. Fe(OH)₃

Answer:

- A. Fe₂O₃.nH₂O

xii) Which non-metal is lustrous: (Mark 1)

- A. Sulphur
- B. Phosphorus

C. Iodine

D. Carbon

Answer:

C. Iodine

Q.2 i) Define di-atomic molecule and give an example. (Marks 2)

Q.2 ii) Define Avogadro's number. (Marks 2)

Q.2 iii) What is matter? How many states it has? (Marks 2)

Q.2 iv) A patient has goiter. How will it be detected? (Marks 2)

Q.2 v) Give three properties of positive or canal rays. (Marks 2)

Q.2 vi) What is Newlands law of octaves? (Marks 2)

Q.2 vii) Why size of an atom increases from top to bottom in periodic table?
(Marks 2)

Q.2 viii) What are transition metals? (Marks 2)

Q.3 i) Give any two major properties of metals. (Marks 2)

Q.3 ii) Write any two differences between polar and non-polar compounds.
(Marks 2)

Q.3 iii) Differentiate between lone pair and bond pair of electrons. (Marks 2)

Q.3 iv) Define Charles's law of gases. (Marks 2)

Q.3 v) What is meant by boiling point? (Marks 2)

Q.3 vi) Define molarity. (Marks 2)

Q.3 vii) What is meant by solvent? Give one example. (Marks 2)

Q.3 viii) Define solubility. (Marks 2)

Q.4 i) What is difference between valency and oxidation state?
(Marks 2)

Q.4 ii) Why is steel plated with nickel before electroplating of chromium?
(Marks 2)

Q.4 iii) What is a salt bridge? What function does it perform in a galvanic cell?
(Marks 2)

Q.4 iv) Write the half cell reactions occurring on cathode and anode in Daniel cell.
(Marks 2)

Q.4 v) Why is copper used for making electrical wires? (Marks 2)

Q.4 vi) Why is calcium more electropositive than magnesium? (Marks 2)

Q.4 vii) Can pure gold be used for making ornaments? If not why?
(Marks 2)

Q.4 viii) Write any two uses of sodium metal. (Marks 2)

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

Q.5 b) Write notes on any four branches of chemistry. (Marks 4)

Q.6 a) Define hydrogen bonding. Also, write its effect on the physical properties of molecules.
(Marks 5)

Q.6 b) What is meant by boiling point? Discuss the effect of any three factors on it.
(Marks 4)

Q.7 a) Write any five rules of assigning oxidation number. (Marks 5)

Q.7 b) Discuss the effect of temperature on solubility. (Marks 4)

FAISALABAD BOARD

GRADE 9

CHEMISTRY

2019 GROUP 2

Lesson 1 of 32

Section-A (MCQs)

i) Which is amorphous: (Mark 1)

A. Diamond

B. Sodium chloride

C. Glass

D. Glucose

Answer:

C. Glass

ii) Which is liquid in solid solution:

(Mark 1)

A. Sugar in water

B. Butter

C. Salt in water

D. Fog

Answer:

B. Butter

iii) Which is heterogeneous mixture:

(Mark 1)

A. Milk

B. Ink

C. Sugar solution

D. Paints

Answer:

D. Paints

iv) The oxidation number of hydrogen in metal hydrides is:

(Mark 1)

A. +1

B. -1

C. +2

D. -2

Answer:

B. -1

v) A spontaneous chemical reaction takes place in:

(Mark 1)

A. Electrolytic cell

B. Galvanic cell

C. Nelson's cell

D. Downs cell

Answer:

B. Galvanic cell

vi) Which is brittle:

(Mark 1)

A. Sodium

B. Aluminum

C. magnesium

D. Selenium

Answer:

D. Selenium

vii) One amu is equivalent to:

(Mark 1)

A. 1.66×10^{-24} mg

B. 1.66×10^{-24} g

C. 1.66×10^{-24} kg

D. 1.66×10^{-23} g

Answer:

B. 1.66×10^{-24} g

viii) Which isotope is used for diagnosis of goiter in thyroid gland:
(Mark 1)

- A. Sr-90
- B. Co-60
- C. I-131
- D. C-14

Answer:

- C. I-131

ix) 4th and 5th period of the long form of periodic of the long-form periodic table are called:
(Mark 1)

- A. Short periods
- B. Normal periods
- C. Long periods
- D. Very long periods

Answer:

- C. Long periods

x) Which element has the highest electronegativity? (Mark 1)

- A. F
- B. Cl
- C. Br
- D. I

Answer:

- A. F

xi) A bond formed between two non-metals is expected to be: (Mark 1)

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

Answer:

A. Covalent

xii) The difference between electronegativity of hydrogen and chlorine is:
(Mark 1)

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

Answer:

A. 1

Q.2 i) Define chemistry. (Marks 2)

Q.2 ii) How a free radical formed? (Marks 2)

Q.2 iii) Define empirical formula with example. (Marks 2)

Q.2 iv) Give two properties of positive rays. (Marks 2)

Q.2 v) What are the defects of Rutherford's Atomic Model? (Marks 2)

Q.2 vi) Why are the noble gases not reactive? (Marks 2)

Q.2 vii) Why shielding effect of electron makes cation formation easy?
(Marks 2)

Q.2 viii) Give the trend of ionization energy in a period. (Marks 2)

Q.3 i) Define duplet and octet rule. (Marks 2)

- Q.3 ii) What is the difference between a single covalent bond and a double covalent bond?
(Marks 2)
- Q.3 iii) Why does ice float on water? (Marks 2)
- Q.3 iv) What is effusion of gases? give an example. (Marks 2)
- Q.3 v) Write the names of two allotropic forms of sulphur. (Marks 2)
- Q.3 vi) Define solution with an example. (Marks 2)
- Q.3 vii) What do you mean by mass / volume %? (Marks 2)
- Q.3 viii) How one molar solution is prepared? (Marks 2)
- Q.4 i) Define electrochemistry. (Marks 2)
- Q.4 ii) What is electrolysis? (Marks 2)
- Q.4 iii) What is meant by electrolytes? Give example. (Marks 2)
- Q.4 iv) Define electrochemical cell. (Marks 2)
- Q.4 v) What are metalloids? Give two examples. (Marks 2)
- Q.4 vi) Write the names of any two moderate reactive metals. (Marks 2)
- Q.4 vii) Why is platinum used in jewelry making? (Marks 2)
- Q.4 viii) Write any two chemical properties of metals. (Marks 2)
- Q.5 a) Write five postulates of Bohr's atomic model. (Marks 5)
- Q.5 b) Write any four differences between molecule and molecular ion.
(Marks 4)
- Q.6 a) Define ionic bond and ionic compounds. Also, write properties of ionic compounds.
(Marks 5)
- Q.6 b) Write detailed notes on factors affecting diffusion of liquids.
(Marks 4)
- Q.7 a) Define voltaic cell. Write any four differences between the electrolytic cell and galvanic cell.
(Marks 5)
- Q.7 b) Write notes on: (Marks 4)
- Percentage Mass/Mass
- Percentage Volume/Mass