



THE PUNJAB SCHOOL
DRC-JTC

Practice worksheet - 1
Self - Assessment - Summer 2020
Class-IX

Chemistry:-1

Marks: 50

Q.1: Choose the correct option:

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i. Industrial chemistry deals with the manufacturing of compounds:

- (a) in the laboratory (b) on micro scale (c) on commercial scale (d) on economic scale

ii. Which one of the following compounds can be separated by physical means?

- (a) mixture (b) element (c) compound (d) radical

iii. The most abundant element occurring in the oceans is:

- (a) oxygen (b) hydrogen (c) nitrogen (d) silicon

iv. Which one of the following elements is found in most abundance in the Earth's crust?

- (a) oxygen (b) aluminium (c) silicon (d) iron

v. The third abundant gas found in the Earth's atmosphere is:

- (a) carbon monoxide (b) oxygen (c) nitrogen (d) argon

vi. One amu (atomic mass unit) is equivalent to:

- (a) 1.66×10^{-24} mg (b) 1.66×10^{-24} g (c) 1.66×10^{-24} kg (d) 1.66×10^{-23} g

vii. Which one of the following molecule is not tri-atomic?

- (a) H₂ (b) O₃ (c) H₂O (d) CO₂

viii. The mass of one molecule of water is:

- (a) 18 amu (b) 18 g (c) 18 mg (d) 18 kg

ix. The molar mass of H₂SO₄ is:

- (a) 98g (b) 98 amu (c) 9.8 g (d) 9.8 amu

x. Which one of the following is a molecular mass of O₂ in amu?

- (a) 32 amu (b) 53.12×10^{-24} amu (c) 1.92×10^{-24} amu (d) 192.64×10^{-25} amu

xi. How many number of moles are equivalent to 8 grams of CO₂?

- (a) 0.15 (b) 0.18 (c) 0.21 (d) 0.24

xii. Which one of the following pairs has the same number of ions?

- (a) 1 mole of NaCl and 1 mole of MgCl₂ (b) 1/2 mole of NaCl and 1/2 mole of MgCl₂
(c) 1/2 mole of NaCl and 1/3 mole of MgCl₂ (d) 1/3 mole of NaCl and 1/2 mole of MgCl₂

xiii. Which one of the following pairs has the same mass?

- (a) 1 mole of CO and 1 mole of N₂ (b) 1 mole of CO and 1 mole of CO₂
(c) 1 mole of O₂ and 1 mole of N₂ (d) 1 mole of O₂ and 1 mole of CO₂

xiv. Organic chemistry deals with the compounds of:

- (a) oxygen (b) carbon (c) hydrogen (d) both b and c

xv. Which branch of chemistry deals with atomic energy and its uses in daily life?

(a) Biochemistry (b) Organic chemistry (c) Nuclear chemistry (d) Physical chemistry

xvi. The chemical properties depend upon the _____ of the substance.

(a) state (b) shape (c) composition (d) none of these

xvii. Which of the elements given below shows variable valency?

(a) Na (b) Cl (c) Fe (d) C

xviii. The chemical formula of ammonia is:

(a) NH_3 (b) NO_2 (c) Na_2CO_3 (d) NaCl

xix. Atomic mass of nitrogen is:

(a) 12 (b) 13 (c) 14 (d) 15

xx. Molecular formula of benzene is:

(a) C_6H_6 (b) CH_4 (c) C_2H_2 (d) C_8H_{18}

Q2: Write short answers of any four questions:

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- i. Define biochemistry and write its scope.
- ii. Differentiate between organic and inorganic chemistry.
- iii. What is the relative atomic mass? How is it related to gram?
- iv. Define analytical chemistry.
- v. What is the difference between Gram atomic mass and Atomic mass?

Q3: Write short answers of any four questions.

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- i. What do you know about valency? Write the valency of carbon and oxygen.
- ii. What is the difference between Molar mass and Formula mass?
- iii. State the reasons: **Soft drink is a mixture and water is a compound.**
- iv. Write importance of Chemical formula.
- v. How many amu does 1g of a substance have?

Q4: Write short answers of any two questions.

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- i. How does homogeneous mixture differ from heterogeneous mixture?
- ii. Calculate the formula mass of ZnSO_4 and H_2SO_4 .
- iii. Differentiate between atom and ion.

Q5: Long question.

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- i. Differentiate between Compound and Mixture.
- ii. Define a molecule and its types.