



IQRA HUFFAZ BOYS SECONDARY SCHOOLS

SCIENCE (ASSIGNMENT # 2)

Name _____ Class VII Date: _____

Unit 6: Elements, mixtures, and compounds

Complete the table to differentiate between metals and non-metals.

Properties	Metals	Non-metals
shiny		
conductors of heat and electricity		
melting points		
states found in		
produce sound on being beaten		
can be drawn into wires		
can be beaten into plates		

1. Write the properties of ionic and covalent compounds in the correct boxes below.

Ionic compounds	Covalent compounds

Properties: hard solids, do not conduct electricity, high melting and boiling points, good conductors of electricity, soluble in water, soluble in covalent compounds, do not conduct electricity, low melting and boiling points, found in all three states.

1. Draw the following atoms and write their names:

- atomic mass 12, atomic number 6
- atomic mass 23, atomic number 11
- atomic mass 35, atomic number 17

2. Which two atoms would make an ionic compound? _____ and _____.
3. Write the name of the compound. _____.

Q3. Complete the table.

Properties	Ionic compounds	Covalent compounds
(i) Physical state (solid, liquid, gas)		
(ii) melting point (high, low)		
(iii) conductor (good, bad)		
(iv) solubility (water, covalent solvents)		
(v) type of bond between atoms (covalent, ionic)		

Q4. Fill in the blanks.

- Matter is made up of tiny particles called _____.
- _____ is the positively charged particle found in the nucleus of an atom.
- An _____ is a negatively charged particle which revolves around the nucleus of an atom.
- The number of protons in atom is called its _____.
- The sum of the number of protons and neutrons in an atom is called its _____.

Q3. Complete the table by writing the number of protons, neutrons and electrons, along with the atomic and mass numbers.

	Symbol	Protons	Neutrons	Electrons	Atomic number	Mass number
(a) hydrogen					1	1
(b) carbon					6	12
(c) sodium					11	23
(d) chlorine					7	35
(e) oxygen					8	16

Q4. Choose the correct answer.

- A substance which is made up of one kind of atom is called.
 - a compound
 - an element
 - a mixture
 - a solution
- A non-metal.
 - is a bad conductor of heat and electricity
 - has a high melting point
 - can be drawn into wires
 - is usually a solid.
- Air is an example of a mixture of.
 - Liquid and solid
 - liquid and gas
 - solid and gas
 - gas and gas

iv. In a solution of sugar and water, sugar is the.

- a) solute b) solvent c) sediment d) emulsion

v. A mixture of oil and water is called.

- a) An emulsion b) a suspension c) a sediment d) a solution

vi. Passing a solution through filter paper is called.

- a) evaporation b) distillation c) crystallization d) filtration

vii. Coins are made of a mixture of.

- a) Non-metals b) gases c) metals d) liquids

viii. An element that can conductor electricity is called a

- a) solid b) liquid c) non-metal d) metal

Q5. Match the statements in lists A and B.

A

- a) An element
- b) A compound
- c) A mixture
- d) Filtration
- e) An emulsion
- f) A solute
- g) A sediment
- h) Metals

B

- is formed by a chemical reaction.
- is passing a mixture through filter paper.
- is a layer formed by the settling of particles at the bottom of the solvent.
- is a pure substance
- are good conductors of heat and electricity.
- is dissolved in a solvent.
- is formed when oil and water are mixed.
- contains particles that are not chemically combined.