



# யாழ்ப்பாணக் கல்வி வலயம்

## Science - Unit Exam - 2020

Grade - 9

Unit - 3

Time : 40 minutes

### Part - I

❖ *Underline the correct answer*

01. An example for element is

- (1) Sodium chloride (2) Copper sulphate  
(3) Glucose (4) Silver

02. The symbol of the chlorine element is

- (1) Ca (2) Mg (3) Al (4) Cl

03. The particles which make matter and are not visible to our naked eye or even by the powerful microscopes are called?

- (1) Mixtures (2) Atoms (3) Compounds (4) Elements

04. "Almost the entire mass of the atom is concentrated at a central core. is positively charged and is called the nucleus. Who discovered this at first?"

- (1) John Dalton (2) Earnest Rutherford  
(3) Louis Pasteur (4) Stanley Miller

05. Which elements contribute to form this compound "CuSO<sub>4</sub>"?

- (1) Cu,S,O (2) O,H,C (3) Cl,C,O (4) H,N,Cu

06. The suitable method for separating salt from sea water is

- (1) Evaporation (2) Winnowing (3) Sifting (4) Panning

07. Which of the following is an example for heterogeneous mixture?

- (1) Salt solution (2) Sugar solution  
(3) Ice cream (4) Sea water

08. The number of protons in the nucleus of an atom is called

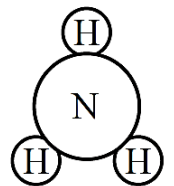
- (1) Atomic number (2) Mass number (3) Isotopes (4) Nucleons

09. Which of the following is the suitable mixture for the constituents diesel, petrol, kerosene and tar?

- (1) Air (2) Sea water (3) Cake mixture (4) Crude oil

10. Which molecule is illustrated by this shown figure

- (1) Ammonia (2) Methane  
(3) Hydrogen chloride (4) Water



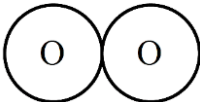
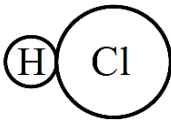
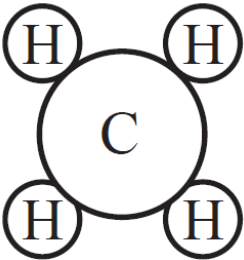


(30 Marks)

Structure Questions

1) (a) Compounds are formed by the combination of two or more elements in a fixed ratio.

01. Identify the following molecules and fill the table

<i>Representation of the molecules</i>	<i>Elements containing</i>	<i>Name of the compound</i>
		
		
		
		
		

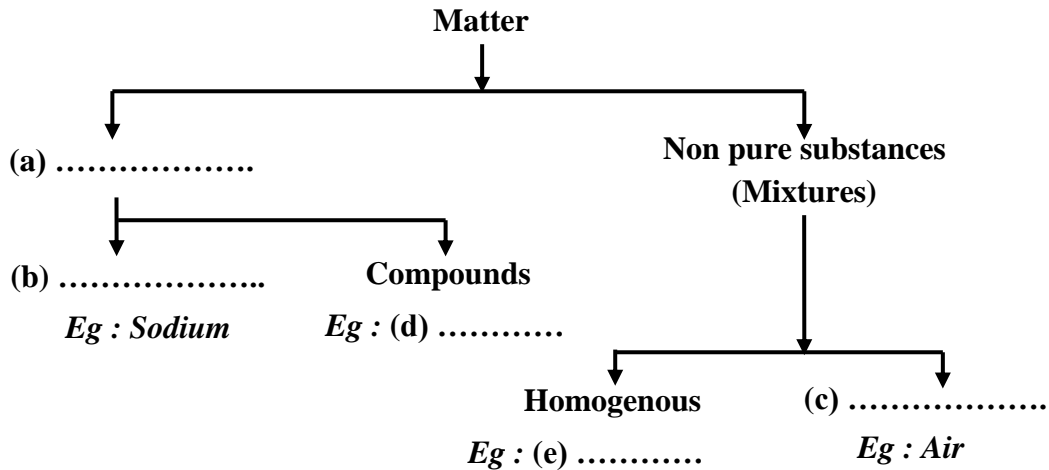
(10 Marks)

(b) Match the following

- |             |    |
|-------------|----|
| 01. Natrium | Cu |
| 02. Cupurum | Pb |
| 03. Plumbum | Au |
| 04. Aurum   | Na |

(8 Marks)

2) (a) Fill the following blanks



01. Identify the letters from a to e?

A : .....

B : .....

C : .....

D : .....

E : .....

(5 Marks)

02. Give 5 examples for the mixtures that are used in your day to day life?

.....

.....(3 Marks)

03. Write the suitable physical methods for separating the constituents from the given mixtures?

a) Rice and stone : .....

b) Sterile seeds and seed paddy : .....

c) Crude oil : .....

d) Cane sugar syrup : .....

(4 Marks)

(b) Basic building units of matter is “Atom”

01. Who used the term atom for the smallest, indivisible particle at first?

.....(3 Marks)

02. “The pure substances with specific properties which cannot be further divided by either physical or chemical methods” How is this substance called?

.....(3 Marks)

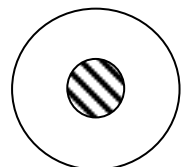
03. Give the subatomic particles of atom?

.....(6 Marks)

04. Label where the above mentioned sub atomic particles located in nucleus?

.....

(3 Marks)



3) (a) A standard method is used to represent an element

01. What is the atomic number of this Mg atom?

.....

02. What is the mass number of this Mg atom?

.....

03. Find the number of Protons?

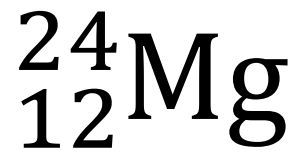
.....

04. Find the number of electrons?

.....

05. Find the number of neutrons?

.....



(5 Marks)

(b) Fill the following table

01. Fill the following table

Element	Number of proton	Number of electron	Number of neutron	Atomic .No	Mass. No
C		6			12
N	7		7		
Ne	10				20
F				9	19
O	8		8		

(15 Marks)

02. Give three examples for the compounds formed by the set of elements C,H,O?

.....  
.....(3 Marks)

03. Give two examples for the compounds formed by the set of elements C,H only?

.....  
.....(2 Marks)

\*\*\*\*\*