

<u>Marking Scheme</u>: Questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

- A. Give reason: *"Freezing of water is a reversible change while burning of candle an irreversible change"*
- B. Define the following terms:
 - i. Sublimation
 - ii. vaporization
 - iii. radicals
- C. State the postulates of kinetic theory of matter.

Question 2:

- A. Give reasons why the particles of matter possess energy called kinetic energy.
- B. Classify following changes into physical and chemical changes:
 - i. Respiration in living organism
 - ii. Meting of solid into liquid
 - iii. Rusting of iron
 - iv. Sublimation of camphor

C.	State the valencies of following metallic elements (Eg. Chlorine is -1):			
	Sodium	Potassium	Magnesium	Aluminium
	Calcium	Zinc	Copper	Iron

Question 3:

- A. Write the chemical formula of following compounds:
 - a. Potassium hydroxide
 - b. calcium phosphate
 - c. Aluminium chloride
- B. Balance the following chemical equations:
 - a. $P + O_2 \rightarrow P_2O_5$
 - b. $H_2S + CI_2 \rightarrow S + HCI$
 - c. NO + $O_2 \rightarrow NO_2$
- C. Give the names of following compounds:

a. $KMnO_4$ b. Al_2S_3 c. Mg_3N_2 d. $NaNO_3$

Question 4:

- A. State 3 differences between mass and weight.
- B. State the law of conservation of mass. Explain briefly using a reaction and observations.
- C. State 4 differences between melting and solidification.

Question 5:

- A. Give reason why particles of matter move more rapidly on application of heat.
- B. Differentiate between solid, liquid and gases on the basis of following characteristics:
 a. Interparticle particle space
 b. Energy possessed by the particles
- C. Answer the following in one word:
 - a. Anything that occupies space and has mass.
 - b. An atom or group of atom that has resultant charge.
 - c. A state of matter that has high density and cannot be compressed.
 - d. A state of matter that has no definite volume and highly compressible