Belpahar English Medium High School, Belpahar.
1ST Terminal Examination 07-08

CLASS – VI   TIME – 40 minutes
SUB – CHEMISTRY   Total Marks. -25

1. **Give reasons for the followings**   [3*1 = 3]

    a) Milk is a mixture.

    b) Ordinary test tubes cannot be used for heating.

    c) Water cannot be used to separate salt and sugar.

2. **Define these terms:**   [3*1 = 3]

    a) Suspension

    b) Filtrate

    c) Metalloid

3. **Answer the following questions**:   [5*2 = 10]

    a) How does a hypothesis become a theory?

    b) What do we study in Chemistry?

    c) Give two differences between compound and mixture.

    d) Why liquids and gases are called fluids?

    e) Write any two characteristics of mixture.

4. **Draw the labeled diagram of**:   [2*2 = 4]

    a) Measuring cylinder

    b) Percent distribution of natural elements in the Earth's crust.

5. **Fill in the blanks:**   [5*1 = 5]

    a) A _____flask is not used for heating liquids

    b) An expert in Chemistry is called a _____.

    c) A _____ solution is one in which no more of a solute can dissolve.

    d) _____ process is used to separate metals from their ores.

    e) Solutions and alloys are _____ mixtures.

CLASS – VIII   TIME – 40 MINTS
SUB – CHEMISTRY   F.M. -25

(Answer all questions)

1. **Fill in the blanks:**   **[5]**

a) Inter- molecular distances ____during freezing of liquids.

b) Gases can easily be ____while liquids and solids do not.

c). The force of attraction between two similar types of particles is called ____ while that between two different types of particles is called ____.

d) _____ sublimes on heating.

e). Intermolecular space is _____ in solids.

2. **Copy and complete the following table:**   **[6]**

Phase transition	Name of transition	Examples
Gas ⟶ solid		
Liquid ⟶ Gas	vapourization	
Solid ⟶ Liquid		
Liquid ⟶ solid		Formation of Ice

3. **Give reasons for the followings**   **[4]**
a). Kerosene oil leaking from a container can be smelt all over the room.
b). A mixture of Sodium Chloride and water freezes at about – 18^0 C.
c). There is no rise of temperature during melting of a solid despite applying heat on it.
d). Solis have high density.

4. **Answer the following questions:**   **[4]**
a). How is the boiling point of a liquid influenced by:
   i). Addition of soluble salts
   ii). Decrease of pressure

b). How is the melting point of a liquid influenced by:
   i). Addition of soluble salts
   ii). Increase of pressure

5. **Define or explain the following terms:** [3]
        a) Freezing point
        b) Vapour
        c) Matter

6. **On the basis of "Kinetic Theory" explain why:** [3]
        a) Liquids have a fixed mass and volume but their shape is not fixed.
        b) Gases have no free surface.
        c) Gases are highly compressible.

7. **Name the phenomena causing the following events:** [4* ½ =2]
        i). Drying of wet cloths
        ii). Change of paraffin wax to liquid on heating
        iii) Formation of clouds
        iv) Formation of snow

BELPAHAR ENGLISH MEDIUM HIGH SCHOOL, BELPAHAR.
1ST TERMINAL EXAMINATION 07-08

CLASS – IX   TIME – 2 hours
SUB – CHEMISTRY   F.M. - 80

SECTION I (40 marks)
Answer all questions.)

Question 1:

a). **Name the following pertaining to the elements of the periodic table.**   **[5]**
  i) The period to which Sulphur belongs
  ii) The type of elements present in zero groups
  iii) The least electronegative element from Cl_2, Br_2, I_2.
  iv) The group to which carbon belongs
  v) The element in period 3, which is electropositive and shows similarities to hydrogen.

b) The experimental data of a specific amount of a gas "X" at constant temperature is given
bellow   **[6]**

Experiment	1	2	3	4
Pressure (atoms)	1	2	3	4
Volume (litres)	6	3	2	1.5

Plot the graphs of
  i) V against P
  ii) V against 1/P
  iii) find out the relation between P and V based on the above data

c) **Give reasons for the following:**   **[10]**
  i) At -273^0C the volume of a gas will be 0cc. this is only theoretically possible, not
  practically.
  ii) Volumes of gases are compared under S.T.P conditions only.
  iii) Diamond is the hardest known naturally occurring substance where graphite is soft.
  iv) Mendeleef's periodic table was not completely accepted in the modern periodic table.
  v) Graphite finds application in the dry cell.

d) **Fill in the blanks with appropriate words to make the sentence meaningful**   **[10]**
  i) Carbon occurs in Free State in the form of_____

  ii) An example of a carbon containing mineral deposit found bellow the earth crust is _____

  iii) All elements of group IV A are _____

  iv) Gases _____readily when kept in contact with one another forming a _____mixture.

  v) According to the modern periodic law, elements are arranged in increasing order of ____.

  vi) Standard temperature is _____and standard is _____cm of Hg.

  vii) _____ classified elements into groups of three on observing a relationship between

  atomic weights of elements in groups of three.

viii) The vertical columns in a periodic table are called _____

e) **Solve the followings:** [4]

 i) A gas occupies in a volume of 100 cm^3 at 0° C and 760 mm Hg pressure. If the Kelvin temperature of the gas is increased by one-fifth and its pressure is increased by one half times, calculate the final volume of the gas.

f) **Distinguish between the following pairs:** [4]

 i) Mendeleef's periodic table and modern periodic table (on the basis of base of classification)

 ii) Diamond and graphite (on the basis of unit cell)

SECTION II (40 marks)
Answer ANY FOUR questions

Question 2

 a) A gas at -23^0 C is heated and allowed to expand at constant P, its volume on heating changes from 60ml to 90 ml. Calculate the final temperature of the gas. [4]

 b) An element "A" has atomic No, 13 [4]

  i) Find out which group and period it belongs and its valence.

  ii) What is the formula of its oxide?

 c) Name two crystalline allotropes of carbon. [2]

Question 3

 a) Based on the periodic table, answer the following questions [4]

  i) Name the noble gas present in period I and 2

  ii) Element in period 4 having properties similar to Mg.

  iii) Lightest alkali metal.

  iv) An element not having any neutron in its nucleus.

 b) Convert the followings: [4]

  i) 190°C = _____ Kelvin

  ii) 0 Kelvin = _____^{o} C

  iii) -137^0 C = _____^{o} C

  iv) 10 atmospheric pressure = _____ mm of Hg

 c) Name the following: [2]

  i) Two elements other than carbon that shows allotropy.

  ii) Two microcrystalline allotropes of carbon.

Question 4

 a) A gas cylinder having a capacity of 10 liters contains a gas at 100 atmosphere. How many flasks of 200 cm^3 capacity can be filled from it at 1 1 atmospheric pressure if the temperature remains constant. [2]

 b) Name the followings: [4]

i) An alkaline earth metal in period 2.
ii) An alkali metal with atomic number 11.
iii) The other name of group VII elements.
iv) The element having highest electro-negativity.

c) i) Name the process by which graphite is artificially manufactured   [4]
   ii) Write the balanced chemical equation of the above reaction.
   iii) What should be nature of the environment inside the furnace?

Question 5.
a) Answer the following: [4]
   i) State Boyle's law
   ii) How is it represented mathematically?
   iii) What is the gas equation?
   iv) What is the relationship between Temperature and Pressure?

b. Give reasons for the followings: [4]
   i) Group IA elements are called the alkali metals
   ii) Noble gases don't form compounds readily.
   iii) Graphite is used for refractory crucibles
   iv) Coke is a better fuel than coal.

c) Name two elements that can exist freely in the nature.   [2]

Question 6
a). Compare the structure of Diamond and Graphite on the basis of followings: [4]
   i) Dimension
   ii) Types of bonding.
   iii) Compactness
   iv) C-C bond length

b) Elements E and F have atomic number 17 and 35 respectively,   [2]
   i) Write electronic configuration of E and F
   ii) Predict their positions in periodic table.

c) Two cylinders A and B are connected by means of a rubber tube and a tap. Cylinder "A" has 8L capacity and the pressure of the gas in it is 1120 cm of Hg and cylinder "B" has 4L capacity with the pressure of the gas in it is equal to 500 mm of Hg.Calculate the final pressure in the combined cylinder.   [4]