BELPAHAR ENGLISH MEDIUM SCHOOL, BELPAHAR
2ND TRIMESTER 2007-08

STD – VI TIME – 40 mins.
SUB – chemistry **F.M. – 25**

Question 1
Answer in one word: [4x1=4]
a) Name an universal solvent.
b) The atmospheric gas required for respiration.
c) Name a catalyst.
d) Name an element.

Question 2.
Fill in the blanks . [4x1=4]
a) Major constituent of air is ----------.
b) Drinking water is called ----------water
c) Photosynthesis is an example of --------- reaction.
d) Suspension and emulsion are ------ substances.

Question 3.
Match the column : [4x ½ =2]

A	B
a. Water vapour	i. ground water
b. Milk	ii. pure substance
c.River water	iii. Humidity of air
d.Rust	iv.Emulsion of fat in water
	v. Surface water
	vi. Compound
	vii. Velocity of air

Question 4.
Give reasons in short (any four) [4x1=4]
a) Paints are used to coat the iron articles.
b) Distilled water is tasteless.
c) Melting of ice is a physical change.
d) Air is called a gaseous mixture.
e) Emulsion is a heterogenous mixture

Question.5.
Answer the followings (any three): [3x2=6]
a) What do you mean by water pollution ?
b) What is saturated solution?
c) What is exothermic reaction ? Give an example.
d) What is atmosphere ?

Question 6
a) state the chemical symbols of the followings: [2x½=1]
i. carbon ii.Iron
b) Name the elements represented by the following symbols: [4x½=2]
i. H ii.He iii.H_2O iv.SO_2
c) Multiple choice [2x1=2]
i. compounds of oxygens are called ----------.(oxide,oxime,ozone)
ii. Compound s carbon called ---------.(carbide, carbohydrate, carborundum)

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STD – VIII TIME – 40 Mins.
SUB – Chemistry **F.M. – 25**

Answer all questions

Question 1 [1+2+3=6]

a) Formula of a metal (M) nitride is MN, write the formula of its (i) sulphate, (ii) chloride.
b) Write the molecular equation for the following word equations and balance the equations.
   1. Ammonia + Oxygen ⟶ Nitric oxide+ water.
   2. Iron(ii) Chloride + Ammonium hydroxide ⟶ Iron(III) hydroxide+ammonium Chloride
c) Give example:
   1. a homogeneous solid + solid mixture.
   2. A heterogenous solid + solid mixture.
   3. A heterogeneous liquid + liquid mixture.

Question 2.

a) Give reasons: [2+1+2=5]
   1. on opening a soda bottle , a brisk effervescence is observed.
   2. Washing soda crystals crumble to white, powder when left open in air.
b) Arrange the metals A,B and C with most active metal first i.e. in decreasing order of reactivity. You are given the following informations .
   1. Metal A and B liberates hydrogen gas from dilute HCl but C does not.
   2. Metal A is displaced from its salt solution by metal B but not by metal C.
c) Write two ways to dissolve sugar quickly in water .

Question 3

a) Name the following: [2]
   1. A monoatomic gas
   2. A metal which is liquid above 300C.
   3. A crystalline salt contains 5 molecules of water of crystallization.
   4. A metalloid.
b) Fill in the blanks: [2]
   1. In a refinery, petrol is obtained from crude oil by the process of _____.
   2. Anomalous solubility is shown by _____.
   3. Crystalline compounds have sharp _____.
   4. The hydrogen formed just at the time of its generation is known as ----- hydrogen.

Question 4

a) differentiate between:
   1. Crystalline substance and amorphous substance [on the basis of shape.
   2. Distillation and fractional distillation.[on the basis of principle of separation.
b) Explain the term-'Reduction'

Question 5. Solve: [1+2=3]

a) 21 gm of a saturated solution KCl at 50^0c contains 6 gm of the salt. Calculate the solubility of KCl at 50^0 c.
b) A saturated solution of $NaNO_3$ containing 50 gm of water cooled from 50^0c to form a saturated solution at 10^0c. what weight of $NaNO_3$ will be crystallized out ?
c) [Given: solubility of $NaNo_3$ at 50^0 c and 10^0c are 114 and 80 respectively]

Question.6.

1. Write balanced chemical equation for the following reactions:-
2. Carbon-dioxide gas is passed through calcium carbonate suspension.
3. Hydrogen gas is passed over hot Cupric Oxide.
4. Hydrogen and nitrogen are allowed to react in presence of a catalyst, at 450^0c temperature.

[3x1=3]

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STD – VII **TIME – 40 Mins.**
SUB – Chemistry F.M. – 25

Answer all the questions:

Question.1

a) Write the chemical formulae of the following compounds: **[2]**

i.Magnesium bicarbonete ii.Sodium oxide
iii. Ammonium sulphide iv.Aluminium nitride

b) Write the name of the following compounds: **[1]**

i. $Fe(NO_3)_3$ ii.$SnCl_2$

c) Write the balanced molecular equation for the following chemical reaction and balance the equation:

i.Nitric Acid $\longrightarrow$ Nitrogen dioxide +water+oxygen
ii.Copper sulphate +Zinc $\longrightarrow$ Zinc sulphate + Copper. [2]

d) Name the method of separation of the following mixtures : **[1]**

a) Salt + water (salt water solution)
b) Ammonium chloride + sodium chloride

Question.2

a)Explain why ?

1. When water is added to the product formed by the combination of carbon with oxygen, it turns blue litmus paper to red.
2. A Magnesium ribbon gains weight on burning.

b) Answer the followings

1. which are related to the preparation of oxygen gas in the laboratory.
2. What is the role of MnO_2 during the preparation O_2 ?
3. Write the balanced chemical equation for the above preparation.
4. How is the gas collected ? [2+2]

Question.3

a.Define—respiration. [1]

b. Correct the following statement by changing only the underlined word. [3]

a) Oxygen and <u>carbondioxide</u> , both are neutral gases.
b) Atomic number is the number is the number of <u>electrons</u> present in an atom.
c) <u>Oxygen</u> is a combustible gas and does not support combustion.

Question.4.

State your observations:

a) The flame colour when potassium will be burnt in oxygen.
b) What will you see ? [2]

Question.5.

Fill in the Blanks :

a) The reactioin in which one element displaces another element from a compound is called the ----- reaction.
b) The formula of a triatomic molecule of oxygen is ----------

c) The gas which is known as water producer is _____.
d) Rust is _____.
e) Elements are made up of only one _____ of atoms.
f) Lime water can be turned milky by _____ gas.

[6x ½=3]

Question.6.

Write the names of the products of the following chemical reaction and mention their types: [4x1=4]

a) Calcium oxide + water
b) Potassium chlorate is heated.
c) Zinc + dil hydrochloric acid.
d) Lead(II) nitrate + Sodium chloride.

Question 7

.Determine the percent composition of calcium in calcium carbonate[$CaCO_3$]

[At wt of :Ca=40, O=16, C=12] [2]

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STD –IX **TIME – 2Hrs.**
SUB – Chemistry F.M. – 80

SECTION – A
(Attempt all questions)

Question.1

A. Fill in the blanks: **[5X1=5]**

1. The _____ electrons are called valence electrons.
2. Plastic sulpher is insoluble in _____.
3. Chemical formula of rust is _____.
4. In _____ process, sulpher is extracted from underground
5. deposites by the use of compressed air and superheated steam.
6. Bleaching powder on reaction with _____, liberates
7. chlorine(Cl_2)gas.

B. Give one example of each: **[5X1=5]**

1. An amphoteric oxide.
2. A metal oxide used as catalyst in chemical reactions.
3. A nonmetal whose liquid form is used as refrigerant, specially to preserve the biological tissues, cryosurgery.
4. An amorphous allotrope of sulpher.
5. A greenish yellow gas, non-metal used for oxidation, sterilization and bleaching.

C. State with chemical reaction equation, what happens when **[5X1=5]**

1. Chlorine gas is bubbled through pure water.
2. Lead nitrate is strongly heated.
3. A piece of solid sulpher is added in concentrated nitric acid.
4. A stream of chlorine gas is passed through excess amount of concentrated solution of ammonia.
5. Dry chlorine gas is passed through a solution of boiling sulpher.

D. Differentiate (with atleast two points) between the following pairs: **[5X2=10]**

1. Rusting and Oxidation
2. Oxidant and Reductant
3. Nitrification and Denitrification
4. Solid sulpher and liquid sulpher
5. Hydracid and Oxyacid of chlorine.

E. Identify the followings: **[5X1=5]**

1. A compound of chlorine, used as germicide.
2. A compound of sulpher, used as fertilizer.
3. Gaseous non-metal, whose liquid form is used as rocket fuel.
4. Compound of Nitrogen which is used to prepare vanishing ink or vanishing colour.
5. Oxide of Nitrogen, used as laughing gas.

F. Give chemical formula of the followings: **[5X1=5]**

Chile salt petre
Nitrolim
Red Lead, Lithraz
Bleaching powder
Phosgene.

G. Complete the following reaction: **[5X1=5]**

$P + O_2 \longrightarrow$?
$CH_4 + O_2 \longrightarrow$?
$Mg + N_2 \longrightarrow$?
$Kl + Cl_2 \longrightarrow$?
$H_2S + Cl_2 \longrightarrow$?

SECTION – B
(Attempt ANY FOUR questions)

Question 2

Give reasons for the followings(any five): **[5X2=10]**

a) Cl_2 water turns blue litmus red and then bleaches it.
b) Nitrogen is relatively inert in nature.
c) Galvanized iron is not used to make food containers.
d) Air obtained by expelling dissolved air from water cotains higher percentage of Oxygen.
e) Sulpher acts as an reducing agent.
f) Sulpher is a non-metal.

Question 3

With help of chemical equations, explain What happens when (any five): **[5X2=10]**

a) Hydrogen peroxide is added dropwise over black Manganease(IV) oxide.
b) In presence of Platinum, ammonia react with Oxygen.
c) Dilute sulphuric acid is added dropwise on bleaching powder.
d) Chlorine gas is passed through aquous solution of sulpher-dioxide.
e) Dry stream of nitrogen is passed over calcium carbide at a high temperature.
f) Sulpher is warmed with phophorus in atmosphere of carbon dioxide.

Question 4

Electronic configuration of an element is 2,8,7. It occur in only combined state in nature. It is a pungent smelling poisonous gas with yellowish green colour . Answer the followings: **[10X1=10]**

a) Name the element .
b) State its periodic position
c) Is it a metal or non- metal ?
d) Comment on its valency
e) State whether it is an Oxidant or reductant in nature .
f) Write down the formula of Oxide of that element .
g) State down the nature of the Oxide formd by this element .
h) What is the formula of its hydride ?
i) Deduce the approximae atomic mass .
j) Can it react with metal ? If can , then write down the formula of corresponding compound .

Question 5

a. Name three important allotropic forms of Sulpher having the following characteristics –

i) The most stable allotropic form [1]

ii) The allotrope insoluable in CS_2 [1]

iii) The amorphous alltropic form. [1]

b. Give one example of each

i. Mixed oxide. [1]

ii. Super oxide. [1]

iii. Sub-oxide [1]

c. i. What is allotropy? State all forms of allotropes of carbon. [2]

ii. What is transition temperature? Give an example. [2]

Question 6

a. State, with help of chemical equations, three methods by which nitrogen can be obtained by oxidation of ammonia. [3x2=6]

b. Write a short note on Haber Process. [3]

c. Give two uses of Nitrogen which are based on its inert nature. [1]