INDIAN SCHOOL MUSCAT

QUESTION BANK

CLASS 10

ACIDS, BASES AND SALTS

1.	What is formed when a non-metallic oxide dissolves in water?	1
2.	What is the chemical name & formula of bleaching powder?	1
3.	Explain why distilled water does not conduct electricity whereas rain water does.	1
4.	What happens when acid& base react? Name the reaction.	1
5.	Name an acid that has vinegar smell& give its formula.	1
6.	What happens when an acid reacts with sodium hydrogen carbonate. Write equation for the reaction that takes place.	2
7.	Name the colour of the corrosion formed by silver. Give the chemical reaction that leads to the corrosion.	2
8.	Plaster of Paris should not be used kept in wet containers. Explain why?Write the equation for the preparation of Plaster of Paris.	2
9.	Why do acids not show acidic behavior in the absence of water? What are strong & weak acids?	2
10.	X is a black solid which on treatment with dilute HCl forms a blue-green solution Y. Name X & Y. Give the balanced equation.	2
11.	A milk man adds a vary small amount of baking soda to fresh milk. Why does he shifts the pH of fresh milk from 6 to slightly alkaline? Why does this milk take longer time to become curd?	3
12.	Name the substance which on heating forms washing soda? How is baking soda different from baking soda?	3
13.	What is water of crystallization of certain salts? What happens when copper sulphate crystals are slightly warmed ? What happens when anhydrous copper sulphate is treated with few drops of water?Explain with one equation.	3

14. Explain the action of baking powder in the making of cake (or bread). Write equation of the reaction involved. Explain how it acts as an antacid. 3

15. Explain why pH in a person's mouth lower after each meal. 3
What damage could be caused while the pH is low?
How could the person change his eating habits to lessen the chances of suffering tooth decay?

16. Complete the equations & balance them. 3
a) $NaCl + H_2O + CO_2 + NH_3 \rightarrow$
b) $2NaCl + 2H_2O$ (Current) $\rightarrow$
c) $CaSO_4.2H_2O$ (Heat) $\rightarrow$

17. A piece of limestone reacts with dilute HCl , a gas X is produced. When gas X is passes through lime water, a white ppt is formed. On passing excess of the gas X , the white ppt dissolves forming a soluble compound v is formed. 5
a) What are X , Y & Z?
b) Write equations for the reactions which take pace
i)when lime stone reacts with dilute HCl.
ii) Gas X reacts with lime water to form white ppt Y iii)when excess of gas X reacts with lime water to form a soluble compound Z.

18. Fresh solutions A, B, C , D & E when tested with Universal indicator showed pH as 4 , 1 , 11 , 7 &9 respectively. Which should be 5
a) Neutral b) strongly alkaline c) Strongly acidic ?
d) Weakly acidic e) Weakly alkaline?

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20. Write word equations & then balanced equations for the reactions taking place when- 5
a) dilute sulphuric acid react with zinc granules
b)dilute hydrochloric acid is added to magnesium ribbon?
c)dilute sulphuric acid reacts with aluminium, powder.
d) dilute sulphuric acid is addeded to iron filigs

CHEMSTRY QUESTIONS (FOR LOW ACHIEVERS)

1.	Name the process by which Copper oxide changes to copper.	1
2.	Name & give formula of the precipitate formed when Lead nitrate solution is added to potassium iodide solution.	1
3.	$H_2S + Cl_2 \rightarrow 2HCl + S$ i)Name the substance that gets oxidized in the above reaction &why? ii)Is the reaction an example for redox? Give your reason.	2
4.	Name the following chemical reactions & mention the physical states of all substances involved. a)$2Al + 3H_2SO_4 \rightarrow Al_2(SO_4)_3 + 3H_2$ b)$2Pb(NO_3)_2 \rightarrow 2PbO + 4NO_2 + O_2$ c)$K_2SO_4 + Ba(NO_3)_2 \rightarrow BaSO_4 + 2KNO_3$	3
5.	a)A green coloured powdery substance X on heating changes to a black powder Y. A colourless &odourless gas Z is evolved that turns lime solution milky white. i)Name the substances X , Y & Z. ii)Write the chemical eqn for the heating of the green powder . iii)Write the eqn for the reaction between Z & lime. b)Write balanced chemical equation for the following reactions. i)Thermal decomposition of Ferrous sulphate. ii)Exposing the crystals of Silver bromide to air.	5

1.	REDUCTION	1
2.	LEAD IODIDE FORMULA:(PbI2)	1
3.	H_2S IS OXIDISED. (REMOVAL OF HYDROGEN) IN THE REACTION , H2S GETS OXIDISED WHILE Cl2 GETS REDUCED TO HCl , HENCE THE REACTION IS REOX.	2
4.	$Al_2(SO_4)_3$ (aq)+ $3H_2$(g) (Double Decomposition) b)$2Pb(NO_3)_2(aq) \rightarrow 2PbO(s) + 4NO(g) + O_2(g)$(Decomposition) c)$K_2SO_4$(aq) + $Ba(NO_3)_2$(aq)$\rightarrow BaSO_4$(s) $2KNO_3$(aq) (DD)	3
5.	a)X=$CuCO_3$ $CuCO_3$ (Heat) Eqn. $CuCO_3(HEAT) \rightarrow CuO + CO_2$ $Ca(OH)_2 + CO_2$ $Ca(OH)_2 \rightarrow CaO(aq)$ b) i)Thermal decomposition. $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO3$ ii) $2AgBr \rightarrow$ $(2AgBr) \rightarrow (2Mg(CO_3)Ag + Br2)$	5

CHEMISTRY QTNS (FOR CT CL-9) [SET-A]

Q6. Name the physical state of matter that has definite volume but no definite shape.[1]

(Ans). Liquid State

Q7. How is dry ice different from ordinary ice? [2]

(Ans).When dry ice or solid CO_2 is opened to air it slowly disappears by changing into gaseous CO_2 without forming any liquid by sublimation. It cools the body without making it wet. Whereas, ice when opened to air slowly melts to form ice water & thus it cools by making the body wet. (4x ½=2)

Q8. Some salt is added to pure ice. Write the change in melting point & boiling point[2].

(Ans).Impurity decreases the melting point of a pure solid. Hence, ice melts below 0^0C when salt is added.(1)

Impurity increases the boiling point of a pure liquid. Hence, water boils above 100^0C when salt is added . (1) (Tot:1+1=2)

Q9. Write four characteristics of particles of matter. What are the two factors that determine the physical states of matter?[3]

(Ans).1.Particles of matter of matter keep space between them.

2.Particles of matter are very small beyond our imagination.

3.Particles of matter are in constant motion & it increases with increase in temperature.

4.Particles of matter attract each other.(4 x ½ =2)

The two factors which determine the physical states of matter are :

External pressure & Temperature. (1mark) (Tot:3)

SET-B

Q.Define latent heat of fusion. [1]

(Ans).The amount of heat needed to change 1Kg of a solid to liquid at its melting point under atmospheric pressure. (1)

Q. Why do solids have definite shape & volume? What is rigidity? [2]

In solids the particles are held in fixed position by strong forces of attraction (particles are closely packed).They can only vibrate & are unable to change the position. (1)

The property by which particles maintain the position when subjected to external force is called rigidity.(1) (Tot:1+1=2)

Q.Write one activity to show that matter consists of particles which keep space between them. [2]

Q. How would increase in pressure & decrease in temperature of a gas affect

i)the distance between particles.

ii)force of attraction between particles.

iii)the physical state of the gas.[3]

(Ans).i) Increase of external pressure & decrease in temperature allow the particles to come closer & hence, distance between the particles decreases.

ii) As the distance between the particles decreases , the force of attraction increases.

iii)By increasing the external pressure &decreasing the temperature ,the gas changes to liquid. (Tot:1x3=3)

SET-C

Q. Define vaporization. [1]

(Ans). The process by which a liquid changes to vapour/gas at its boiling point under atmospheric pressure. (1)

Q.Write two differences between liquid state & gaseous state[2]

Liquid state: 1.Has definite volume but no definite shape

2.Cannot be compressed

Gaseous state: 1.Has no definite shape or volume.

2.Highly compressible. (Tot:4x ½ =2)

Q. Describe an activity to show that particles of matter are very small beyond our imagination.[2]

Ans. (Text Book Activity 2). Description (1) , Diagram(1). (Tot:1+1=2)

Q.a)Convert the following temperature in to Celsius Scale.

i)300K ii)0K

(Ans). i)300-273=27^0C ii)0-273= -273^0C (2x ½ =1)

b)How can we liquefy a gas?

(Ans). By compressing & cooling at the same time (1)

or

(Increasing external pressure & decreasing the temperature)

c) Name the process in which a solid directly change in to gas.

Ans: Sublimation (1) (Tot:1+1+1=3)
