**SUNSHINE SCHOOL**

**CHEMISTRY FORM ONE**

**END OF YEAR EXAM**

**TIME: 2HRS**

**NAME CLASS ADM NO.**

**INSTRUCTIONS**

* **ANSWER ALL QUESTIONS**
* **DO NOT LEAVE ANY BLANC SPACE**
1. Give two reasons why chemistry is studied as a subject in high school (2mks)
2. a)State two commonly abused drugs by students (1mk)

b) Suggest two ways to reduce drug abuse among students (1mk)

1. Explain why most apparatus are made of glass in the laboratory (2mks)
2. State two apparatus used to measure liquids in the laboratory approximately (2mks)
3. State two applications of solvent extraction as a method of separating mixtures (2mks)
4. Name the most suitable method of separating the following mixtures in the laboratory;
5. Oil from cashew nuts (1mk)
6. Red colour from flower petals (1mk)
7. Describe how you can obtain crystals of sodium chloride from a mixture of sodium chloride , iodine and sand (3mks)
8. State two industrial applications of fractional distillation (2mks)
9. State two differences between temporary and permanent changes (2mks)
10. Complete the table below

|  |  |
| --- | --- |
| Element | Symbol |
| Copper |  |
|  | Pb |
| Silver |  |
|  | K |
| Manganese |  |
|  | C |

1. Complete the following word equations
2. Carbon + Oxygen

 (excess)

1. Zinc + dilute hydrochloric acid
2. Sodium + Water
3. Magnesium + steam
4. a)Define the following terms (3mks)
5. An acid
6. A base
7. An indicator

b) Name the commercial indicators and state their colour in acid and base

|  |  |  |
| --- | --- | --- |
| Indicators | Acid | Base |
|  |  |  |
|  |  |  |
|  |  |  |

c) List the use of acids (2mks)

1. List the uses of bases (2mks)

e) Name the acid used in;

 i) Car batteries (1mk)

 ii) Vinegar (1mk)

f Name two acidic oxides (2mks)

1. Sodium metal reacts with cold water ,
2. Write a word equation for the reaction which takes place (1mk)
3. How would you show that one of the products is basic (1mk)
4. The diagram below shows the effect of heat on hydrated cobalt (II) chloride



1. Name liquid Q (1mk)
2. Write a word equation for the reaction in the heated tube (1mk)
3. What observations are made in the heated tube (1mk)
4. Anhydrous copper (II) sulphate is heated in the test tube then liquid Q is added. State the observations made (1mk)
5. The diagram below shows preparation of oxygen gas



1. Name liquid Z (1mk)
2. State two mistakes in the above diagram (2mks)
3. Write an equation for the reaction which takes place (1mk)
4. When sodium is burnt in oxygen a yellow solid is formed. When the yellow solid is dissolved in water a gas is evolved and a colourless solution formed.
5. Name the yellow solid (1mk)
6. What would be the effect of the colourless solution on blue litmus paper (1mk)
7. State the confirmatory test for the gas (1mk)
8. Explain why potassium is stored in kerosene while phosphorus under water (2mks)
9. A cooling curve shows how the temperatures of a substance changes with time as the substance is cooled from a gas to a solid. The cooling curve of a substance is X shown below.



1. Mark on the graph the regions representing the three states of matter (1mk)
2. What is the state of X at 25oC (1mk)
3. In terms of kinetic theory, explain the difference between particles in regions AB and CD (2mks)
4. A candle was burnt in the laboratory to produce water and carbon (IV) oxide,
5. Name the two elements present in the candle (1mk)
6. Name the general name for such compounds (1mk)
7. a) Define the following terms

Reduction (1mk)

Oxidation (1mk)

1. Identify the reducing and oxidizing agents in each of the following
2. Iron (II) oxide + Carbon (II) oxide Iron + Carbon (IV) oxide (1mk)
3. Hydrogen + Copper (II) oxide Copper + Water (1mk)
4. Explain why the following cannot be used to prepare hydrogen gas using sulphuric acid;
5. Lithium (1mk)
6. Lead (1mk)
7. Copper (1mk)
8. Define the following terms
9. Rusting (1mk)
10. Galvanization (1mk)
11. Alloying (1mk)
12. The set up below was used to investigate the products of burning dry hydrogen gas.

 

1. Name the colourless liquid (1mk)
2. Write an equation for the burning of hydrogen in air (1mk)
3. Define the following terms (3mks)
4. Atomic number
5. Mass number
6. Isotopes
7. Complete the following table (7mks)

|  |  |  |  |
| --- | --- | --- | --- |
| No. of protons | No. of electrons | No. of neutrons | Mass no |
|  | 11 |  | 23 |
| 17 |  | 18 |  |
|  | 17 |  | 35 |
|  |  | 20 | 40 |

 \*\*\*\*\*END SUCCESS, BLESSED HOLIDAY\*\*\*\*\*