**HOLA SECONDARY SCHOOL**

**CHEMISTRY**

**MID TERM EXAMINATION**

**YEAR 2012**

**TERM TWO**

**FORM ONE**

**TIME:**

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_CLASS\_\_\_\_\_\_\_\_\_ADM/NO.\_\_\_\_\_\_\_\_\_\_\_**

1. What is chemistry? (1mk)
2. A) What is a mixture? (1mk)

Bi) Explain how you would obtain sand from a mixture of sand and common salt. (2mks)

ii) Stat why the method you have explained in (b)(i) above would be unsuitable for separating a mixture of sugar and common salt. (1mk)

1. The diagram below shows a set – up made by a form one student.

State and explain the observation made at the end of the experiment. (3mks)

1. Define the following terms.
2. Atom (1mk)
3. Element (1mk)
4. Compound (1mk)
5. Molecule (1mk)
6. Give three differences between a mixture and a compound. (3mks)

|  |  |
| --- | --- |
| **Mixture** | **Compound** |
|  |  |

1. Give two reasons why a non – luminous flame is most preferred for heating in the laboratory. (2mks)
2. Write the chemical symbol of the following elements. (6mks)

|  |  |
| --- | --- |
| **Element** | **Symbol** |
| Sodium |  |
| Argon |  |
| Silver |  |
| Carbon |  |
| Manganese |  |
| Chlorine |  |
| Copper |  |
| Iron |  |
| Mercury |  |
| Oxygen |  |
| Potassium |  |
| Boron |  |

1. Complete the table to give the colours of indicator in acids and bases. (4mks)

|  |  |  |
| --- | --- | --- |
| **Indicator** | **Colour in acid** | **Colour in base** |
| Phenolphthalene |  |  |
| Litmus |  |  |
| Bromothymol blue |  |  |
| Methly orange |  |  |

1. A student tested the pH of five solutions using universal indicator and obtained the following results.

|  |  |  |
| --- | --- | --- |
| **Solution** | **Colour** | **pH** |
| A | Blue | 10 |
| B | Violate | 14 |
| C | Red | 1 |
| D | Green | 7 |
| E | Yellow | 5 |

1. Classify the solutions as strongly acidic, weakly acidic, neutral, strongly alkaline and weakly alkaline. (5mks)
2. Which of the solutions is likely to be: (4mks)
3. Hydrochloric acid
4. Sodium chloride solution.
5. Lemon juice
6. Sodium hydroxide solution.
7. Give any three uses of acids. (3mks)
8. When hydrochloric acid react with Zinc carbonate, a colourless gas is evolved. (1mk)
9. Name the gas evolved. (1mk)
10. Explain how the gas could be identified. (2mks)
11. Complete the word equations for the reactions between; (4mks)
12. Zinc + hydrochloric acid
13. Copper (II) carbonate + nitric acid
14. Sodium hydroxide + hydrochloric acid
15. Sodium hydrogen carbonate + Sulphuric
16. State three characteristics of permanent chemical change. (3mks)
17. Name the method of separating coloured pigments. (1mk)