**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ADM/NO\_\_\_\_\_\_\_\_\_\_\_**

**DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ FORM\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CHEMISTRY**

**TERM TWO 2017**

**FORM 1**

**TIME: 1 ¾ HOURS**

**HOLA SECONDARY SCHOOL**

**MID TERM EXAMINATIONS**

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1. Study the symbols below and put a tick ( ) on the correct one and a cross (X) on the wrong ones. (8mks)

|  |  |
| --- | --- |
| **Element** | **X or** |
| Potassium |  |
| Silver |  |
| Mercury |  |
| Calcium |  |
| Oxygen |  |
| Copper |  |
| chlorine |  |
| Aluminium |  |

2. Fill the table below by stating the colour in end case. (5mks)

|  |  |  |
| --- | --- | --- |
| **Indicator** | **Colour in acid** | **Colour in base** |
| Litmus |  | Blue |
| Phenolphthalein | colourless |  |
| Methyl orange |  |  |
| Screened methyl orange | Purple |  |

3. Briefly describe how a simple acid – base indicator can be extracted from Mchonchozi flowers. (3mks)

4. Ice melts when it is warmed and if one continues beating the liquid boils. Draw a heating curve showing these changes in terms of behavior of the particles. (4mks)

5. Name acids found in the following substances. (5mks)

a) Lemon juice

b) Vineger

c) Solar milk

d) Car battery

e) Fizzy drinks

6. Name the technique you would use to separate mixtures of the following substances. (4mks)

a) The coloured dyes used in inks

b) Sand and iodine

c) Petrol and water

d) Two soluble salts

7. All alkalis are bases but not all base are alkalis. Explain. (2mks)

8. Classify the following as compounds, mixture or elements. (6mks)

a) Water

b) air

c) Iron

d) Salt solution

c) Magnesium

f) Sugar

9. Solutions may be classified as strong base, weak base, neutral, strong acid or weak acid. The information below give some solutions and their pH values. Study it and answer the questions that follow.

|  |  |
| --- | --- |
| **Solution** | **pH** |
| A | 0.5 |
| B | 7 |
| C | 14 |
| D | 9 |
| E | 6.5 |

Classify the solutions in the table using the stated classifications. (5mks)

10. Dilute sulphuric acid was added to a compound of magnesium P. The solid reacted with the acid to form a colourless solution Q and a colourless gas R which found a white precipitate when bubbled through lime water. (3mks)

Name

i) Compound P

ii) Solution Q

iii) Colourless gas R.

b) Write a word equation for the reaction that took place. (1mk)

c) State the observations that would be made if a similar compound of calcium was used instead of magnesium. Explain. (3mks)

11. Explain why most laboratory apparatus are not made of plastics. (2mks)

12. Outline four safety laboratory rules that should be observed when one want to use the laboratory. (4mks)

13. Define the following terms. (5mks)

a) Drugs

b) Drug abuse

d) Dosage

d) Over the counter (D.V.C) drugs

e) Prescription.

14. Name three components of air. (3mks)

15. Why do you think acids have benefits to a chemist? Give three benefits. (3mks)

16. State two effects of acids to the environment. (2mks)

17. State the kinetic theory of matter. (2mks)