**ELERAI MCK GIRLS SECONDARY SCHOOL**

**EXAM I TERM I 2015**

**CHEMISTRY 2**

1. State any three differences between non luminous flame (3mks)
2. The diagram below shows a Bunsen burner when in use.

Name the regions A,B and D.(3mks)

1. The curve below represents the variation of temperature with time when pure and improve samples of a solid were heated separately.

Which curve shows the variation in temperature for the pure solid? Explain. (2mks)

1. State and explain the change that occurs when the following substances are heated separately in open crucibles.
2. describe how solid ammonium chloride can be separated from a solid mixture of ammonium chloride and anhydrous calcium chloride.(3mks)
3. The table below shows liquid that are miscible and those that are immiscible.

|  |  |  |
| --- | --- | --- |
| liquid | L3 | L4 |
| L1 | miscible | miscible |
| L2 | miscible | immiscible |

Use the information given to answer the questions that follow.

1. Name the method that can be used to separate L1 and L3 from the mixture.
2. Describe how a mixture of L2 and L4 can be separated.
3. Classify the following processes as either chemical or physical. (3mks)

|  |  |
| --- | --- |
| process | Type of change |
| a)heating copper II Sulphate crystals |  |
| b)obtaining kerosene from crude oil |  |
| c)souring milk |  |
|  |  |

1. The diagram below is set – up for laboratory preparation of oxygen gas.
2. Name solid p (1mk)
3. Write an equation for the reaction that takes place in the first flask (2mks)
4. What property makes oxygen to be collected using this method? (1mk)
5. How is oxygen tested in the laboratory? (2mks)
6. Give two commercial uses of oxygen. (2mks)
7. Candle wax is mainly a compound consisting of two elements name the two elements.(2mks)

b) The set up below was used to investigate the burning of candle .study it and answer the

 Questions that follow.

i)What would happen to the burning candle if the pump was turned off.(3mks)

ii) State and explain the changes in mass that are likely to occur in tube N.(3mks)

1. Name the two gases that come through tube M. (2mks)
2. What is the purpose of calcium chloride in tube L. (1mk)
3. A student used the set up shown in the diagram below in order to study the reactions of the same metal with steam. The experiment was carried out for ten minutes.

 What observation would be made it the gas F is ignited. (1mk)

b) State two commercial use of gas F (2mks)

c) When the experiment was repeated using iron powder instead of magnesium ribbon very little gas F was produced .explain. (1mk)

d) State whether solution with the following P.H values are acidic, basic or neutral.

 P.H=3, p.H=6, p.H=12, p.H=7, p.H=8

Which of the following p.H values listed above is of

1. A strong acid
2. A weak base
3. A strong base
4. A weak acid
5. Water

e) Write word equation for the following reactions between dilute hydrochloric acid and each of the following

 i) Zinc metal (2mks)

ii) Calcium hydrogen carbonates (2mks)

iii) Magnesium oxide (2mks