PRESIDENTS OFFICE

REGIONAL ADMINISTRATION AND LOCAL GOVERNMEN

MARKING SCHEME — CHEMISTRY,

FORM II

SECTION A.

1.

i) C

ii) C

iii) A

iv) D

v) A

vi)

vii) B

viii) A

ix) D

x) A

i → D

ii → C

iii → B

iv → E

v → F

(a) Orange red / blown

(b) Copper (Cu), water 2 mark @ = 4

(c) (i) to Produce Hydrogen.

(ii) to dry hydrogen. (1.5 @ = 4.5)

(iii) to test the Presence of water

ii) Chromatography. (1.5 mark)

Q4 a) (i) Coagulation and flocculation.

At this stage, chemicals such as aluminium sulphate, iron (III) sulphate, or sodium aluminate are added in water to bind together small particles present in water and form large particles called flocs

(ii) Second stage involves settling of flocs to the bottom due to its weight (sedimentation)

(iii) Filtration: where by clear water on top of flocs passes through the filter in order to remove the very small and dissolved particles such as bacteria, other organisms, dust and some of chemicals

d (iv) disinfection: involves treatment of filtered water using disinfectants such as chlorine, sodium hypochlorite, ~~et~~ these chemicals kill microorganism ~~[illegible]~~ before stored in tanks

(v) stored in tank.

(vi) Ready to supplies. 1 mark @ = (6 mark)

(c) Air Composed by more than one gases which can be separated by physical means. (2marks)

(c) Mercury (II) oxide when heated produces. toxic mercury fumes and oxygen gas.

$$2HgO_{(s)} \longrightarrow 2Hg_{(l)} + O_{2(g)}$$ (2marks)

Q5 (a) (i) It was already hydrated and therefore blue in colour. (2marks)

(ii) Any anhydrous copper (II) sulphate, blue cobalt chloride paper (3marks)

(b) (i) Na · (ii) Mg (iii) chlorine · 1mark@=3

(c) (i) Importance of Chemical symbols.
- Write chemical equations in abbreviated forms instead of writing each element in its full name.
- Distinguish one element from the other.

1 mark @ = 2

16(ii) a) Incase if there occurence any of fire explosion, fire extinguisher help to extinguish fire.

(b) For Ventilation (Exchanging air in and out of the Laboratory)

(c) ~~Can because can cause~~ accident, ~~Confusion~~,

c) If it is not Labelled, it means you can't Know what is contained in the Container so it easily to make, mistakes, Confusion, to cause accident. 1 mark @ = 3

(iii) Importance of Changing state of matter.

a) Drying of materials: the wet material dry up if the Liquid it contains changes to vapour.

(b) Refinery: Petroleum refinery work under the Principle of distillation when a Liquid change to vapour and then the vapour cooled back to Liquid again

Water cycle: the ability of water to change from Liquid to vapour then back again to Liquid as rain after condensation plays an important role in our climatic condition.

1 mark @ = 3

(c) Diagram of portable fire extinguisher (4 marks)

Q7 (a) Are non renewable sources of energy because are sources that can not be ~~replenished~~ replenished within short periods of time (3 marks)

(b) (i) (4 marks)

Diagram of Preparation of oxygen.
(Potassium chlorate)

(ii) (a) Potassium chlorate $\xrightarrow{\text{Manganese(IV)oxide}}$ Potassium chloride + Oxygen gas (word equation)

(b) $2\,KClO_{3(s)} \xrightarrow[\text{Heat}]{MnO_2} 2\,KCl_{(s)} + 3\,O_{2(g)}$ (chemical equation)

4 marks (a) – 2

8(a)(i) Flammable (1 mark)

(ii) Corrosive (1 mark)

(b) (i) Magnetization (1 mark)

(ii) The method is appropriate because the mixture contain magnetic materials (iron fillings) (2 marks)

(c) Iron, Oxygen, and water (2 marks)

(d) → Reduce life span of iron (1.5 @ = 3 marks)
→ Cause disease ie tetanus.
→ to make the iron to be Unattractive corrosion.

9 (a)
(i) Put off the main switch

(ii) Break the contact between the electrical source and the victim using a dry wooden stick or any other material that does not conduct electricity

(iii) Check weather the victim is breathing, if breathing is stopped, begin blowing air into the victims air ways using a clean materials

(iv) If the victim is breathing but is unconscious put him or her in the recovery position

(1.5 @ = 6 Marks)

(b)

	MIXTURES	COMPOUNDS
(i)	The Components combo can be separated from one another by physical methods	The constituent elements cannot be separated by physical methods, but can be separated by chemical methods.
2.	Mixtures may vary widely in Composition: the Components are mixed in any Proportions.	Compounds have always definite or fixed Compositions by mass of the elements; the proportions are fixed.
3	No chemical change occurs when mixtures are formed	Chemical changes are involved when new substances (Compounds) formed
4	Components may be seen separately	Components cannot be seen separately.

(1 mark @ = 4)

10(a) Diagram of bunsen burner: (5 marks)

• Procedures on how to light the bunsen burner.

(i) Close the air hole and connect the burner to the gas using the rubber tubing.

(ii) Light a match / wooden splint and hold it at the top of the chimney.

(iii) Open the gas tap slowly to half-way then to fully open position.

(iv) Open the air holes ~~shut~~ slowly after the gas is lit.

1·5 @ = 6 marks

(c) flame Produced when air holes open.	flame Produced when air ~~holes~~ holes Closed.
(i) Blue in colour	Yellow in Colour
(ii) Does not Produce soot	Produces soot.
(iii) Produces more heat	Produces less heat
(iv) Has a triangular flame.	Has a wavy flame.
(v) Burns with a roaring noise	Burns quietly

~~Effort~~ (1 mark @ = 4 marks)