CHEMISTRY FORM ONE
MARKING SCHEME.

1.

i	ii	iii	iv	v	vi	vii	viii	ix	x
C	B	D	C	A	B	A	C	D	C

(@01= 10 marks)

2.

LIST A.	i	ii	iii	iv	v
LIST B.	D	C	E	B	A

(01=05 marks)

3. (a) Are the measure taken to avoid or minimize or eliminate injury in laboratory. **(01 mark)**

(b) (i) This is to ensure that one does not accidentally get into contact with harmful substance or interfere with equipment.

(ii) To avoid contamination of other substance, they should be clean and free of any spills.

(iii) Smoke it is rise up, lying flat on the floor allow the person to stay below the thickest concentration of smoke, improving visibility and making easier to breath and find an exist.

(iv) To make it easier to escape from the laboratory during an accidents or emergencies.

(@01=04 marks)

(c) i) Wear protective gloves for preventing of any infections

ii) Place a victim in a comfortable resting position.

iii) Elevate the injury part

iv) Gently clean the wound using clean water and antiseptic or common salt.

v) Dress the wound, bandage it. If the bleeding continues take the victim to a nearly by health centre.

(@ 01= 05 marks)

4.(a) i) **In beaker A;** Rust will occur because air contains water vapor which cause to small amount of rust forming on nail.

In beaker B; No rust because calcium chloride dries out the air

In beaker C; Rust will occur, nail in water and the test tube is not stoppered, because oxygen is slightly soluble in water, therefore will dissolve and react with nail to form rust.

In Beaker D; No rust because boiled water has no oxygen and oil stops new oxygen to inter.

(@01=04 marks)

ii) To determine the conditions necessary for rusting to occur. **(01 mark)**

iii) Destruct human property especially iron which may cause skin cancer once contact with human body.

(02 marks)

(b) Due to the presence of salt in coastal region which increase the rate of rusting process, salt it oxidize a metal into their respective ions easily to combine with water to form a rust. **(1.5 mark)**

(c) Moderate element such as zinc, lead the form protective layer of their metal oxide when exposed to air, which prevent air and moisture to inter **(1.5 mark)**

5.(a) i) Because liquid has no definite shape take the shape of the container

ii) Because the gas takes the volume of its container.

iii) Because its particles in solid are packed closely together, it vibrates and cause expansion when heated.

(@01=03 marks)

(b) i) After five minutes the color of the solution become dark purple due to diffusion process property of potassium permanganate particles. **(01 mark)**

ii) After several hours the color of the solution may change to purple shade that is lighter than the initial color, this is because the solution of water and potassium permanganate is made up of very tiny particles which get dispersed and spread together to give dark purple color and finally making the solution lighter in color.

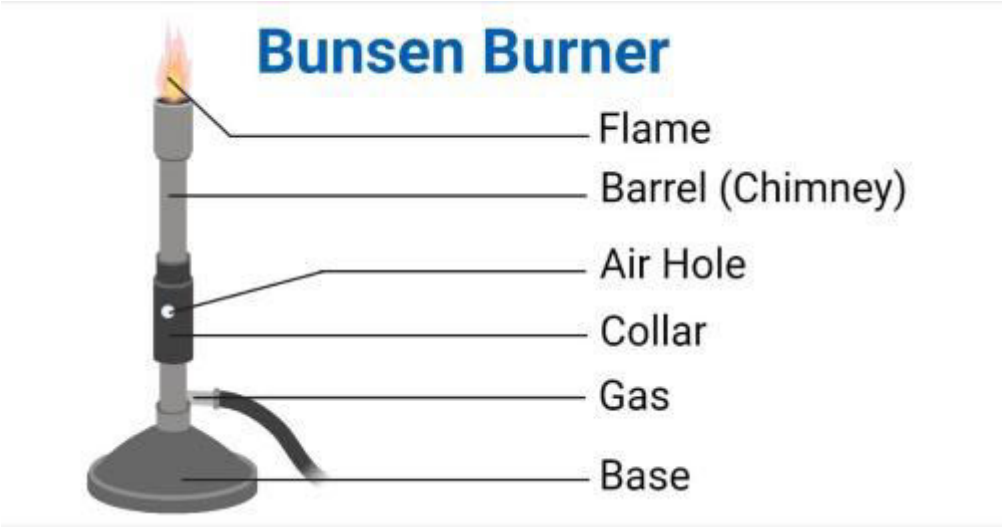
(01 mark)

iii) Diffusion and Dispersion. **(02 mark)**

iv) Matter is made up of tiny particles which are constantly moving. **(01 mark)**

(c) State that "all matter consists of many, very small particles which are constantly moving or in a continuous state of motion" **(02 mark)**

6.(a)



(02 marks)

(b) i) Connect the Bunsen burner by rubber tube to the gas supply.

ii) Close the air holes.

iii) Turn the gas tap on to let in sufficient gas.

iv) Quickly bring a flame at the top of the barrel by using match stick.

v) Turn the collar to adjust the air hole until you get the type of flame you want.

(@ 01= 05 mark)

(c) i) Switch off the gas supply.

ii) Closing the air hole

iii) light the Bunsen burner again **(@01=03 marks)**

7.(a)i) Chemistry work in **Environmental science,** help to understand chemical process which occurring in environment such as pollution and climatic change.

ii) Chemistry work in **Medicine and pharmacology,** to understand chemical structure and properties of drugs.

iii) Chemistry work in **Geology** to exploring the chemical composition and process of the earth and other planets.

iv) Chemistry work in **Agriculture** to examine the chemical process related to plants, animals and soil health, crop protection and fertilizer.

v) Chemistry work in **Engineering science,** particularly chemical engineering which applies chemical principles to design and operate industrial process for production of chemicals and other materials.

(@01= 05 marks)

(b) i) Used to in production of fertilizer, weed killers, pesticides and animal vaccines.

ii) Through production of some toxic substance, corrosive and other chemical products which may destruct environment if are not handed well. **(@01= 02 marks)**

(c) i) Are ancient people who studied chemistry in past. **(01 mark)**

ii) – They want to change iron into gold.

- To find medicine for cure diseases. **(@01= 02 marks)**

8.(a) Are special tools or equipment that are used in laboratory for scientific experiment. **(01 mark)**

(b) i) They are easily to break.

ii) They are relative expensive.

iii) When the break may cause hazardous. **(@01= 05 marks)**

iv) They are heavy compare to plastics.

v) They are not easily to store and transport.

(c) **REFFER TO TIE BOOK ONE,** Page 38-50 **(Diagram and function @0.5= 01 marks) Total 04 marks.**

9. a) **(@ 01= 2 Marks)**

First Aid	First Aid Kit
First Aid is an immediate help/treatment given to a person who is sick or injured before to take him/her to the hospital	First Aid kit is a small box that contains items which used to give help/treatment to a sick or injured person.

b) **The uses of:-**

(i) Gloves are used to covering the hands to avoid infecting wounds and to prevent direct contact with a victim's body fluid. **01 Mark**

(ii) Bandage is used to dress in injured area or wound. **01 Mark**

(iii) Painkiller is used to reduce or relieving pain **01 Mark**

c) Possible causes of accidents

i. Spilled liquids left on the floor may causes slipping and falling.
ii. Wrong use of equipment that can result in breakage and in turn lead to cuts.
iii. Failure to follow the right procedure for given experiments that can lead to explosion and damage of equipment.
iv. Chemical spills and exposure that can lead to spurns and damaged to the body parts such as eyes and skin.

v.Poor ventilation in the laboratory may cause poisoning by in heling harmful gases, and fainting due to lack of oxygen. **(@ 01=05 marks)**

SECTION C (15 MARKS)

10. (a) i) Blanket is made up by heart resistance fibrous silicate minerals called **asbestos.**
ii) It is heavier used to help individual by stopping fire burning on the clothes.
iii) Blanket is rolled around the individual hence stopping the supply of oxygen.
iv) Class A fire because clothes are solid material.

(@01=04 marks)

(b) i) Keep a reasonable distance from the fire as it may change direction (such as 3 metres)
ii) Never use a portable extinguisher on people, instead use fire blanket.
iii) Do not test a portable extinguisher to see if it works, it may leak and later fail to work during an emergence.
iv) Do not return a used portable extinguisher to the wall.
v) When fire get out of control, abandon it and notify the nearest firefighting team

(@01=05 marks)

(c) i) Fine sodium bicarbonate pressualized with nitrogen
ii) Non-flammable carbon dioxide under extreme preasure.
iii) Potassium acetate.
iv) Mono- ammonium phosphate with nitrogen carrier.
v) Bromochloro-difluoromethane.
vi) Proteins and flouro-proteins

(@01= 06 marks)