

**PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
MKALAMA DISTRICT COUNCIL**

**FORM TWO DISTRICT MOCK EXAMINATION - MARKING SCHEME
CHEMISTRY**

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
B	A	C	B	A	C	B	C	B	B
(i)l.	(ii)	(iii)	(iv)	(v)					
D	C	A	G	B					

SECTION A (15 Marks)
01 = @ = 9Marks 2.

sqam 50 = @ 10

2.

SECTION B (70 MARKS)

3. (a) Application of chemistry in

- (i) Agriculture – Chemistry knowledge help to obtain products including fertilizer, pesticides, animal vaccine and processed animal feeds.
- (ii) Transportation – Knowledge of chemistry help to make products which used in transporting including fuel and lubricant, their parts such a engines, batteries and tyres, etc coolants, carpets, plastics etc.
- (iii) Medicine and pharmacy – knowledge of chemistry help to make drugs, vaccines and food supplements;
- (iv) Construction materials industry – knowledge of chemistry help to make paints, varnishes, cement, plastics, iron sheet etc.

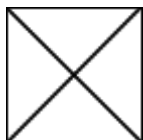
@ 1 ½ marks any three examples of products =(06 Marks)

- (b) (i) Doctor
- (ii) Pharmacist
- (iii) Chemical engineer
- (iv) Laboratory technician
- (v) Laboratory scientist

- (vi) Researcher
- (vii) Teacher of chemistry
- (viii) Nurse
- (ix) Chemical analysis
- (x) Chemist

Any 04 points @ 01 mark = (04 Marks)

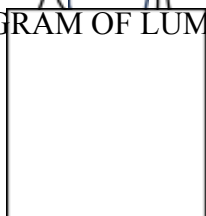
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- (i) Luminous flame - **01 mark**
- (ii) It is bright yellow in colour
 - It is not very hot
 - It burns quietly (does not make noise)
 - It is easily seen thus it is safety flame

01 @ any 02 points = 02 marks

- (iii) DIAGRAM OF LUMINOUS FLAME



Thin outer zone

Yellow middle zone

Inner unburnt zone

Blue outer zone

Heading – 01 mark

4 labelled parts = 02 marks

@ 00 ½ mark

Good diagram – 01 mark

TOTAL = 04 marks

(b) Significance of chemical symbol.

- (i) Distinguish one element from the other.
- (ii) Know the name of the element. For example, the symbol Cu represent copper.
- (iii) Write chemical equation in abbreviated form instead of writing each element in its full name.
- (iv) Quickly understand the elements being referred to instead of memorizing the full name.

1 @ any four points = 04 marks

Total 11

5. (a) (i) Physical change **02 marks**

(ii) Reasons

- No new substance is formed
- No change in mass
- Affect only physical properties of matter
- No energy is produced or absorbed
- The molecules are rearranged while their actual composition remain same.

1@ any four = 04 marks

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(b) Bottle A - Fractional distillation
Bottle B - Sublimation

Bottle C - Chromatography

Bottle D - Simple distillation/filtration/ decantation

01 @ 4 marks total 10 marks

6. (a) Name of the gas is Hydrogen **01 mark**
Uses

- (i) Manufacture of ammonia gas
- (ii) Manufacture of hydrochloric acid
- (iii) Production of oxy-hydrogen flame

Renewable	Non-renewable
- Solar energy - Wind energy - Biogas	- Petroleum - Charcoal - Natural gas

(iv)

Preparation of water gas

- (v) Filling weather balloons
- (vi) Manufacture of margarine

01@ any four points = 04 marks

(b) The substance T is water

- steam can react with some metals to give the respective metal oxides and hydrogen gas.
- Pure water is neutral at room temperature. It is neither acid nor basic.

- Cold water react with some metal hydroxides and liberate hydrogen gas.

01@ any three points = 03 marks

ii. Uses of water in industries

- Manufacture of goods (e.g. chemicals, food, beverages, textile and paper)
➤ Water used as a solvent, coolant, source of steam for steam engines, and as medium for different mixture.

01 @ any two points = 02 marks

7. (a) (i) Fuel – Is any combustible substance which on burning in air gives a large amount of heat energy that can be used economically for domestic, transportation and industrial purposes.

(ii) Efficiency of a fuel – Is the ratio of the amount of energy released to the energy stored by the fuel.

00 ½ @ 1Marks

(c) Characteristics of good fuel

- i. Good fuel should be easily available
- ii. Good fuel should be easily affordable
- iii. Good fuel should ease to transport and storage
- iv. Good fuel should have high energy value
- v. Good fuel should have moderate velocity of combustion
- vi. Good fuel should have no/low content of non-combustible material.
- vii. Good fuel should have non-hazardous product of combustion.
- viii. A good fuel should have high pyrometric burning effect

01@ any four points = 04 marks

8. (a) (i) Water supply system

(ii) Drainage system

(iii) Electric supply

(iv) Well illuminated

(v) Well ventilated

(vi) Door open out ward

(vii) Gas supply

01@any four points =04 marks

3@ 6marks

b) (i) Read instructions carefully before you start any activity

(ii) If you do not understand some thing, ask your teacher before proceeding

(iii) Read the labels on reagent bottles carefully to make sure you have the right substance

- (iv) Do not interchange labels
- (v) Do not eat, drink, smoke, play or run in the laboratory
- (vi) Do not taste or smell chemicals unless advised on how it should be done

01@any four points =04 marks

9. (a) i. It helps to preserve life
- ii. It prevents the victim's condition from becoming worse
 - iii. It promote recovery
 - iv. It help to reduce pain and suffering
 - v. It prevent infections

01@any four point = 04 marks

- b) i. Prevent infections in fresh cuts, burns and scrapes
- ii. Keeping dressings in place and immobilising injured limbs
 - iii. Smoothing dry, cracked and sore skin
 - iv. Brown to call for help
 - v. washing hand and wound

01@any four point= 05 marks

10. Definition

Water treatment, is the process of making water usable.

Water purification, is process or removal contaminants from treated water **3 marks**

Ways to make domestic water safe to use

1. Boiling,
 - Kills bacteria, viruses and parasites
2. Filtration
 - Remove physical impurities, sediments and some microorganisms
3. Chlorination
 - Adding chlorine (household bleach) kills bacteria and viruses
4. Disinfection
 - Fill clear plastic bottles with water and place them in direct sunlight for 6-8 hours, The sun rays kill harmful microorganism
5. Distillation
 - Boil water, collect the steam, and condense it back into liquid form. This removes bacteria, viruses,

and heavy metals

6. Using water purifier

- Kills harmful microorganisms such as bacteria

7. Proper storage

- Store treated water in clean, covered containers, avoid recontamination

2@any five points = 10 marks

Conclusion

Therefore water treatment and purification is important for our lives.

2 marks