

# PRESIDENT'S OFFICE REGIONAL ADMINSTRATION AND LOCAL GOVERNMENT MKALAMA DISTRICT COUNCIL

## FORM TWO DISTRICT MOCK EXAMINATION - MARKING SCHEME CHEMISTRY

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	
В	A	С	В	A	С	В	С	В	В	]
(i)1.	(ii)	(iii)	(iv)	(v)						-
D	С	A	G	В						

SECTION A (15 Marks)  $\theta 1 = @ = 9Marks 2$ .

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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)



- (i) Luminous flame \ -
  - **∖ 01 mark**
- (ii) It is bright yellow in colour
  - It is hot 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

#### Physical change 5. (a) (i)

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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Fractional distillation (b) Bottle A

> Bottle B **Sublimation**

Bottle C Chromatography

Bottle D Simple distillation/filtration/ decantation

total 10 marks 01 @ 4 marks

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

Uses

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

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

Preparation of water gas

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

01@ any four points = 04 marks

- The substance T is water (b)
  - > steam can reat 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 (a) 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 1/2 (a) 1 Marks

- (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) Electic 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 botles 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 plece and immobilisig 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 ,sedments and some microorganisms
  - 3. Choorination
- -Adding chlorine (household bleach) kills bacteria and viruses
  - 4. Disnfection
- Fill clear plastic bottles with water anda place them in direct sunlight four 6-8 hours, The sun rays kill harmful microorganism
  - 5 Distillstion
- Boil water, collect the steam, and condense it backinto 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 inclean, covered containers, avoid recontamination

2@any five points = 10 marks

Conclusion

There fore water water treatment and purification is important for our lives.

2 marks