

Name:

Class:

Sign

CHEMISTRY

PAPER

2 hours

ASSHU – KASESE ACADEMIC BOARD

End of year promotional examination 2022

S.1CHEMISTRY

PAPER

2 hours

INSTRUCTIONS:

- *This paper consists of two sections A and B*
- *Attempt All questions in Section A and 3 Questions in Section B*
- *Any additional questions answered will not be marked.*

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SECTION A: (Attempt All Questions in this section)

1. A student left a knife outside the house for about a week. On observing the knife, it was found that the knife turned dark brown on the surface.

(a) What is the chemical name of the dark brown substance?

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.....

(b) What conditions lead to the formation of the brown coating?

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.....
.....

Which type of change does the knife undergo

.....
.....

(c) Mention at least three ways of preventing the formation of the dark brown coating.

.....
.....

2. Name the elements represents the following symbols.

Symbol	Element
H	
C	
K	
Ar	
Cu	

3. The following are changes that occur in everyday life. Classify them as either physical or chemical changes.

Change	Type of change
Rusting of iron sheet	
Burning of wood	
Melting of candle wax	
Rotting of fruits	
Dissolving salt in water	

4. Elements and compounds are examples of pure substances. Name the elements that are in the following compounds.

Name of Compound	Element in it
Water	
Carbon dioxide	
Sodium Chloride	
Iron Sulphide	
Zinc Fluoride	

5. Distinguish between the three states of matter, solids, liquids and gases in terms of

(i) Arrangement of particles

.....

(ii) Motion of particles

.....

SECTION B (Attempt any three question)

6. In a given school, the students complained that their mid break lessons are temporally affected by the aroma of the food being prepared for their teachers. According to them, the aroma is always intense during hot days compared to cold days.

The students keep wondering why the aroma from the kitchen can almost circulate around the whole school.

You have been identified as a chemistry student to explain this scenario on the school assembly, ^{wife} work a down a speech that you would present to explain the situation.

7. Through Human activities and settlements, the quality of drinking water in most areas of our country may gradually deteriorate. This is as a result of many wastes generated properly, sewage can be a danger to a clean and healthy environment.

Your village council wants to protect ^{your} ~~the~~ health of ~~AB~~ people and also conserve water by effectively treating sewage.

As a chemistry student, the chairman LCI has sent you an ^{invitation} invitation to go ^{steps} to the council and present a report about the steps of sewerage treatment. Write the report, You would present

8. Your grandmother keeps both her cooking oil and drinking water in her bed room. In a bid to prepare her food, she mistakenly pours the cooking oil into the water and she immediately realizes. She then calls you to help her isolate ^{them. wife} down a laboratory report of an experiment you would carryout to isolate the two liquids.

9. At Mr. Mukasa's supper market, the following statement is clearly written in bold letters on the entrance.

"When shopping at this place, customers, come with your own renewable shopping and produce bags instead of single use bags, invest in water bottles".

Write down a report clearly explaining the above statements to the public.

10. In your village, people are currently building good house with nice compounds.

However, if not constructed properly with the materials of good quality, such ^{core aggregates} house can breakdown causing financial loss and sometimes loss of life.

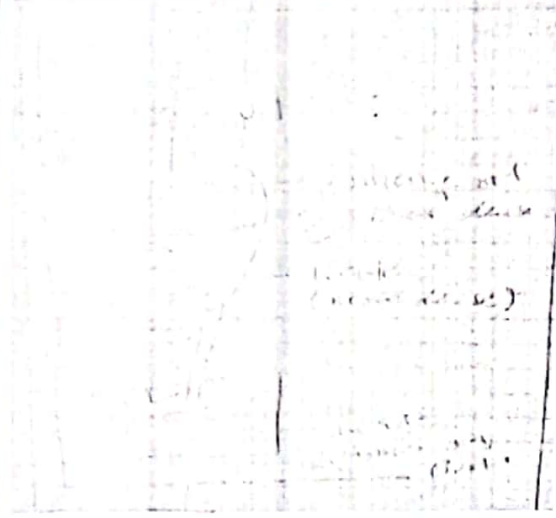
Using your knowledge of materials, write an essay identifying the materials you would advise people constructing houses to use. Justify the choice of each material you chose.

END.

SI CHEMISTRY 2022 MARKING GUIDE

Q/N		
1	(a) hydrated iron (iii) oxide 01 mk (b) water and oxygen 01 mk 01 mk (c) chemical change 01 mk (d) – oiling 01 - galvanizing 01 - tin plating 01 - greasing 01 - Enameling	Short response question All answer must be short and precise Any4 Max. 08 mks
2	Hydrogen Carbon Potassium Argon Copper	Take spelling serious No mark should be awarded if spelling is wrong @1 mk = 05 mks
3	Chemical change Chemical change Physical change Chemical change Physical change	As in two above Max. 05 mks
4	Hydrogen, oxygen 01 01 Carbon, oxygen 01 01 Sodium, chlorine 01 01 Iron, Sulphur 01 01 Zinc, fluorine 01 01	As in two above Max. 10 mks
5	(i) in solids particles are compacted together - in liquids particles are not compacted together like in solids - in gases, particles are far apart. (ii) – in solids particles vibrate about their mean position 01 mk - in liquids particles flow 01 mk in gases particles move at random in all directions and they move faster. 01 mk, 01 mk	03 mks Award marks if explanation implies Max. 07 marks
		Section A: max. 35 mks
6	Points: basis of evaluation diffusion is the movement of particles from a region of high concentration to a region of low concentration - it occurs in gases its rate is higher in gases and increases with increase in temperature - the movement of air particles is responsible for spreading of the aroma	Conclusion each 1 mk Clear definition 2 mks 01 media 02 effect of temperature 02 reason for spread of aroma

	<p>-the particles of gases move randomly in all directions and this explains why the aroma spreads around the whole school.</p>	<p>03 reason why aroma spreads around the school Max. 15 marks</p>
<p>7 A well written report</p>	<p>Expected answer</p> <p><u>Basis of evaluation</u></p> <p>Definition of sewerage: sewerage is a mixture of waste materials from home mixed with water. 01</p> <p>States of sewerage treatment</p> <p>-screening : removing large objects that may block or damage equipment and grit is removed 02 mks</p> <p>-primary treatment: separation of organic matter from waste water. This is done in settling tanks for solids to sink to the bottom (sludges). Its removed for further treatment. 03 mks</p> <p>-secondary treatment: water is put in large rectangular tank is blown into the water to encourage bacteria to break down the tiny bits of sludge that might have escaped. 03 mks</p> <p>-final treatment: waste water is passed through a settlement tank where more sludge is removed and water at this stage is almost free from harmful impurities</p> <p>Flow chart: Treatment center <u>screening stage</u> to primary treatment to secondary treatment to final stage to filtered into the river</p>	<p>Definition 01 mk</p> <p>Definition 01 mark</p> <p>Stage 01 mk</p> <p>What it entails 01 mk</p> <p>Stage 01 mk What it entails 02 mks</p> <p>Stage 01 mk What it entails 02 mk</p> <p>Stage 01 mk What it entail 02 mk</p> <p>Flow chart 02 mk Draw in the right order with arrows 01 mk (mark of excellence)</p>
<p>8 Output A well written report</p>	<p>Expected response</p> <p>-cooking oil and water when mixed together form two layers, they do not mix together</p> <p>-cooking oil floats on water. Cooking oil is less dense than water</p> <p>-mixture is separated using a separating funnel where its poured when tap is closed and when opened water flows into a container leaving the cooking oil in the funnel which is also removed</p>	<p>Knowledge of immiscible 03 mks</p> <p>Knowledge of diff in density 03 mks</p> <p>Knowledge of instrument of separation and simple procedure 05 mks</p> <p>Well drawn diagram and layer clearly labeled 03 mks 1 mk for referring to less dense floating, more dense on bottom</p>

		(1 mk of excellence)
9 Output A well written report	<p>Basis of evaluation</p> <ul style="list-style-type: none"> -knowledge of renewable and non-renewable materials -biodegradable and non biodegradable materials -effect of pollution by use of biodegradable materials -mention any item that reduce pollution of cotton cloth, paper, wood, woolen cloth -proper disposal of used materials -mention reasons why mukasa avoids non-biodegradable materials may be blown by wind to places like low lands and cause soil infertility -they do not decompose easily and pile around this supper market to make it dirty -pollute water -Death of animals when eaten -the block drainage systems and drinking water pipes -may lead to death of marine animals 	<p>2 mks</p> <p>2 mks</p> <p>2 mks</p> <p>02 mks</p> <p>02 mks</p> <p>Any 4 (04 mrks)</p> <p>Max. 04 mks</p> <p>Makof excellence is for a learner who relates to recycling of non-biodegradable. (01 mk)</p> <p>Max. 15mks</p>
10 Out put	<p>Expected answer</p> <p>Basis of evaluation</p> <ol style="list-style-type: none"> 1) identification of materials 2) justification of each of the materials 3) excellence: a house plan. 	<p>Each material a mark</p> <p>Max. 09 mks</p> <p>Reason given for each material</p> <p>05</p> <p>01 mk</p> <p>Max. 15 marks</p>