

Candidate's name/ Index number



THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
KIGAMBONI DISTRICT JOINT EXAMINATION



FORM TWO
032 CHEMISTRY

Time: 2½ hours

Thursday, 15th May 2025 a.m.

Instructions

1. This paper consists of sections A and B with a total of ten (10) questions.
2. Answer **ALL** questions in the spaces provided.
3. All writing must be in blue or black ink, except drawing, which must be in pencil.
4. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** at the top right corner of every page.

QUESTION #	MARKS	INITIALS OF EXAMINER
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

SECTION A (15 MARKS)

1. Choose the most correct answer among the given alternatives and write the answer in the space given.
- (i) Which of the following is the best apparatus for measuring accurately a fixed volume of a given solution?
- A. Beaker
 - B. Burette
 - C. Pipette
 - D. Measuring cylinder
- (ii) Sepalm's child was stung by a wasp. Which of the following would you advise him to apply on the affected area of his child's body?
- A. Vinegar
 - B. Washing soda
 - C. Ethanol
 - D. Water
- (iii) Which of the following sets of substances contain mixtures only?
- A. Water, cooking oil and petrol
 - B. Steel, bronze and brass
 - C. Iron, brass and Ice
 - D. Table salt, sugar and chalk
- (iv) Substances that can burn or corrode your skin are called...
- A. Oxidizing agent
 - B. Flammable
 - C. Corrosive
 - D. Biohazard
- (v) One of the reasons for painting car bodies is to avoid rusting. How does the paint prevent the rusting?
- A. By preventing sunlight and oxygen from reaching the iron
 - B. By preventing oxygen and water from reaching the iron
 - C. By preventing sunlight and water from reaching the iron
 - D. Because paint is higher in the electrochemical series than iron
- (vi) Form two students at Seypalm Secondary School strongly heated a sample of ammonium chloride in a crucible. Which of the following was the result of heating the sample after some time?
- A. The sample changed into liquid through melting
 - B. The sample changed into solid through deposition
 - C. The sample did not change its state
 - D. The sample changed into vapour through sublimation
- (vii) Shock is a condition which results into
- A. The rupturing of the blood vessel in the brain

- B. A stroke, because shock is another word for stroke
 C. The body system failing to take enough blood to the vital organs.
 D. Choking because the air passage becomes blocked

(viii) During an experiment, dry hydrogen gas was passed through a test tube containing a strongly heated black copper oxide without any air. What was eventually observed in the test tube?

- A. The black copper oxide changed into white copper metal
 B. The black copper oxide changed into brown copper metal.
 C. The hydrogen gas exploded with a pop sound
 D. The copper dissolves to form salt

(ix) The following are reasons for keeping all chemicals in properly labelled containers in the Chemistry laboratory EXCEPT.

- A. To show how skilled the laboratory technician is
 B. To avoid accidents
 C. To avoid errors in experiments
 D. To make it easy for laboratory users to find what they need

(x) Which of the following statements is not true about non-luminous flame?

- A. It is very hot and not so bright
 B. It does not produce much soot
 C. It is very bright and not very hot
 D. It is obtained when the air hole of the Bunsen Burner is open

Answers

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)

2. Match the mixtures in list A with the correct separation method in list B.

LIST A	LIST B
(i) Applied on car bodies to create a waterproof and airproof cover over the surface of the iron.	A. Use of silica gel
(ii) Applied on moving parts of machinery to form a protective film, preventing rusting.	B. Painting
(iii) Using mixtures of iron and other metals, for example, stainless steel, to prevent rusting.	C. Oiling and greasing
(iv) The coating of one metal with a layer of another metal by means of electrolysis, where the metal to be coated is the cathode and the coating metal the anode.	D. Alloying
(v) Involves the covering of an iron object with a layer of zinc. In this case, even if the zinc is scratched to expose the iron, the iron does not rust.	E. Electrolysis
	F. Fire extinguishing
	G. Electroplating
	H. Galvanizing

Answers

List A	(i)	(ii)	(iii)	(iv)	(v)
List B					

SECTION B (70 MARKS)

3. (a) When you burn a piece of paper in fire, you get ash. Mention the type of the change that occurs and give its definition.

.....

- (b) Give four characteristics of the type of change described in 3 (a) above.

- (i)

 (ii)

 (iii).....

 (iv).....

4. (a) (i) Mr. Seypalm, who is a builder, went away on a one-week vacation to wait for the rains to end before he could continue with his construction work. He had unintentionally left his iron nails outside; when he returned, he was dismayed to find most of his iron nails reddish brown and corroded. Define the process that affected his iron nails.

.....

- (ii) State two necessary conditions for the process in (a)(i) above to occur

..... and

- (b) Briefly describe any four methods that can be used to prevent the processes that destroyed Mr. Seypalm's iron nails.

- (i)

 (ii)

 (iii).....

 (iv)

5. (a) Hydrogen is most commonly prepared in the laboratory. Outline the most convenient way of preparing hydrogen gas in the school laboratory and write a word equation for the reaction during the preparation.

(b) State any six uses of hydrogen gas.

- (i)
- (ii)
- (iii).....
- (iv).....
- (v)
- (vi).....

6. (a) In his first day at school as a form one student, Seypalm was telling his parents that he has learned Chemistry. His parents asked him, "what is that?" Help Seypalm to answer his parents' question correctly.

(b) After getting an answer about what Chemistry was, Seypalm's parents asked him again where that knowledge of Chemistry is applied. What could be the correct response in four points?

- (i)
- (ii)
- (iii).....

7. (a) As a form one student who has already visited and worked in the Chemistry laboratory, how would you explain to someone who has never seen it about what it is?

(b) Working in the Chemistry laboratory can be dangerous sometime. What are the four possible causes of the danger in the laboratory?

- (i)

- (ii)
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(iii).....
.....

8. (a) Mixtures can be categorized as homogenous or heterogeneous, with at least one example, explain each of the two categories of mixtures.

(i) A homogeneous mixture:

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(ii) A heterogeneous mixture:

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(b) When it comes to the separation of mixtures, an appropriate method may need to be used in order to make the mixture separation process successful. One of the methods is chromatography; explain the following about it:

(i) Its definition:

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(ii) Two of its practical application in life:

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9. (a) The kinetic theory of matter has three main points. Outline any two of those points.

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(b) Explain the three states of matter

(i)
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.....

(ii)
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.....

(iii).....
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.....

SECTION C (15 MARKS)

10. Gas N is made up of the most abundant element in the earth's crust. The clear, colourless gas, which is odourless and tasteless can be prepared in the school laboratory by using potassium chlorate.

- (i) Suppose you were required to demonstrate the preparation of the gas by using potassium chlorate, with the aid of a well labelled diagram, illustrate the preparation of gas N.

(ii) Describe the test used to identify gas N

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(iii) State any three chemical properties of gas N

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