

NAME:.....ADM:.....CL
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FORM 2
CHEMSITRY
END YEAR 2019

1. Define the term Chemistry? (1mks)
2. An atom of element x is represented as shown below.



- a) Using dots or crosses diagrams draw the atom of element x. (2mks)
 - b) Show the electronic configuration of a stable ion formed by element x. (1mk)
3. Define the following terms. (3mks)
 - a) Crystallization
 - b) Radical
 - c) Mixture

4. Study the diagram below and answer the questions that follow.

									E
A	B		C					D	
	G		I					H	
F									

- a) (i) Write down the electronic configuration of element E. (1mk)
- (ii) Ion formed by element H. (1mk)
- (iii) Formula or compound formed when G combines with D. (1mk)
- b) By giving reason, identify the type of bond formed in a (iii) above? (2mks)
- c) Explain the differences in the melting points of A and B. (2mks)
- d) Compare the reactivity of element D and H. (2mks)

Name the particles that are responsible for electricity conductivity in ?
(3ks)

5.

- a) Melts?
- b) Solids?
- c) Aqueous solutions?

6. (a) Give the chemical name of rust? (1mk)
- (b) Name 3 conditions necessary for rusting. (3mks)

7. Distinguish the following terms: (6mks)
- a) Allotropes and isotopes
- b) Isotopes

c) Hygroscopic and deliquescent salts.

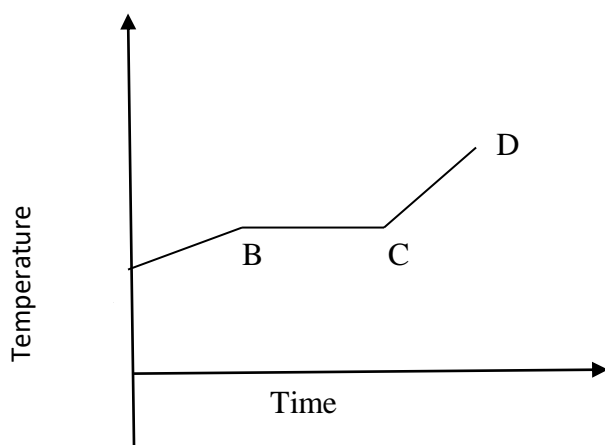
d) Thistle funnel and separating funnel

8. Give two substances which can be separated by sublimation (2mks)

9. Is air a mixture or a compound? Explain. (2mks)

10. When magnesium is reacted with air, there is around 90% change in volume of air. With the help of chemical equations. Explain this. (4mks)

11. The graph below shows the changes that occur when solid A is heated. Study it and answer the questions that follow.

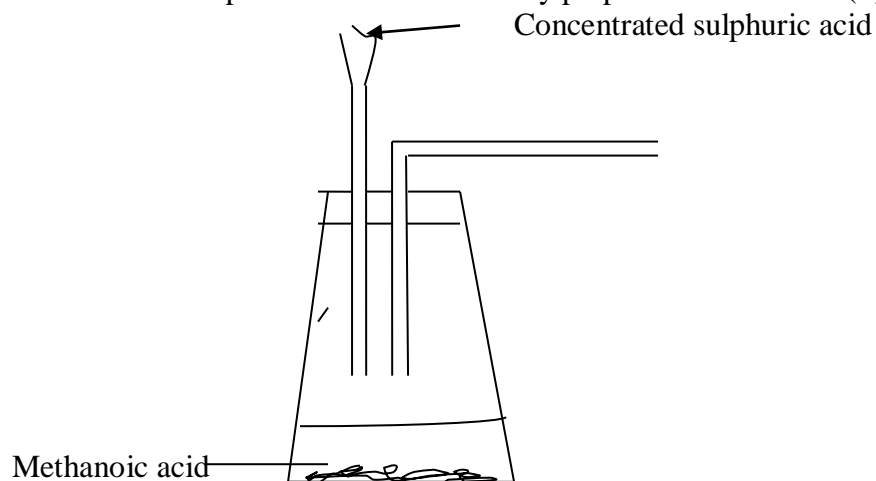


a) What happens between points A and B. (2mks)

b) What happens between Point B and C. (2mks)

c) What are the effects of impurities on the melting point and boiling point of substances? (2mks)

12. The set up below shows laboratory preparation of carbon (ii) oxide gas.



a) Complete the diagram to show how carbon (ii) oxide gas is collected. (4mks)

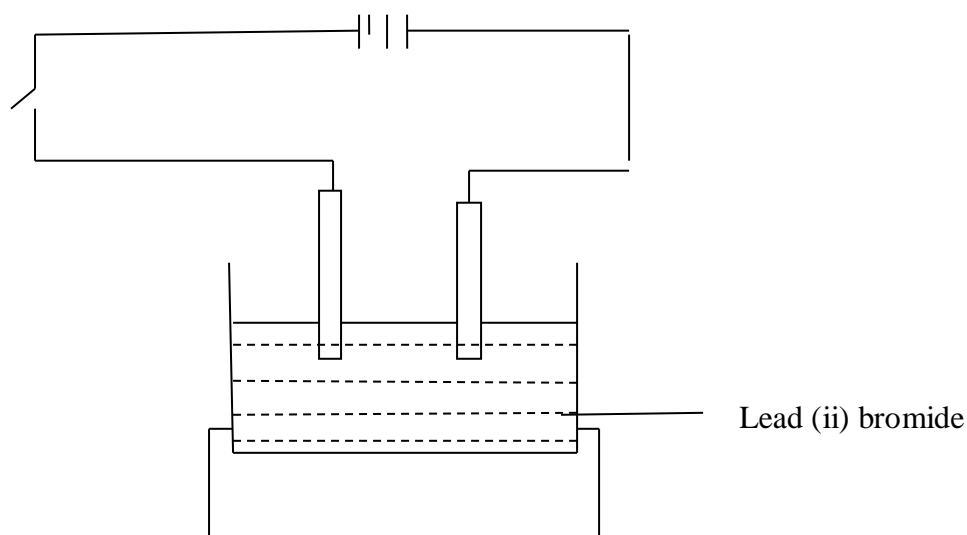
b) Explain why carbon (ii) oxide gas is collected as shown above. (1mk)

c) Write a chemical equation for the reaction above. (1mk)

d) Name 2 other methods that can be used to prepare carbon (ii) oxide gas. (2mks)

e) A charcoal Jiko should be left burning in poorly ventilated room. Explain. (2mk)

13. Study the set up below and answer the questions that follow.



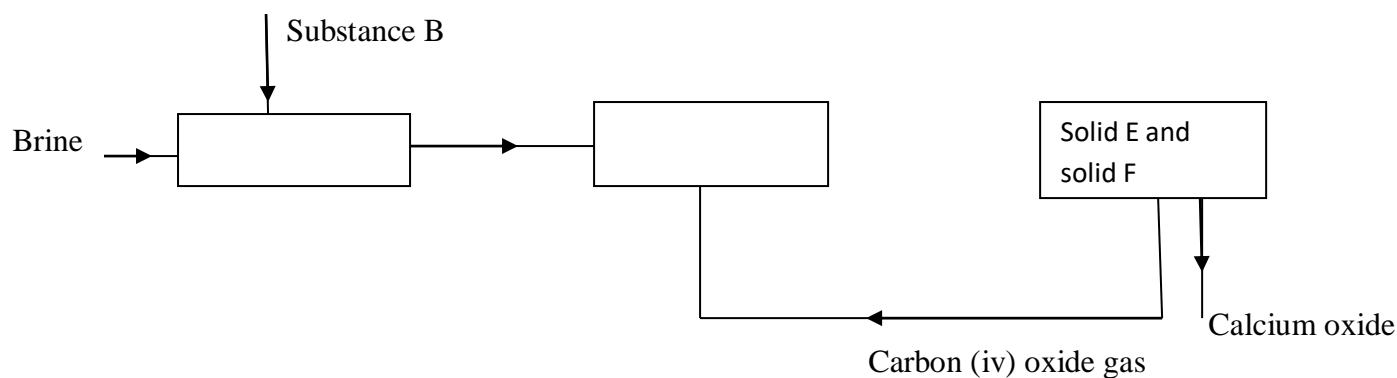
a) State one condition missing in the set up (1mk)

b) What happens to lead (ii) Bromide and the bulb when the condition above is available. (2mks)

c) Write equations for the reactions occurring at (i) The cathode (2mks)

(ii) The anode

14. The figure below shows a section of the solvay process.



a) Name substance B. (1mk)

b) Where should the solvay process be carried out? Explain (2mks)

c) Name solids E and F. (2mks)

d) Name 3 substances recycled in the Solvay process. (3mks)

15. Give the method used to separate components of crude oil. (1mk)

16. Give 2 applications of crystallization (2mks)

17. Give the name of the following method of gas collection.

(1mk)

