

## CHEMISTRY TOPIC WORKSHEETS/TESTS

NAME: .....

SCHOOL:.....

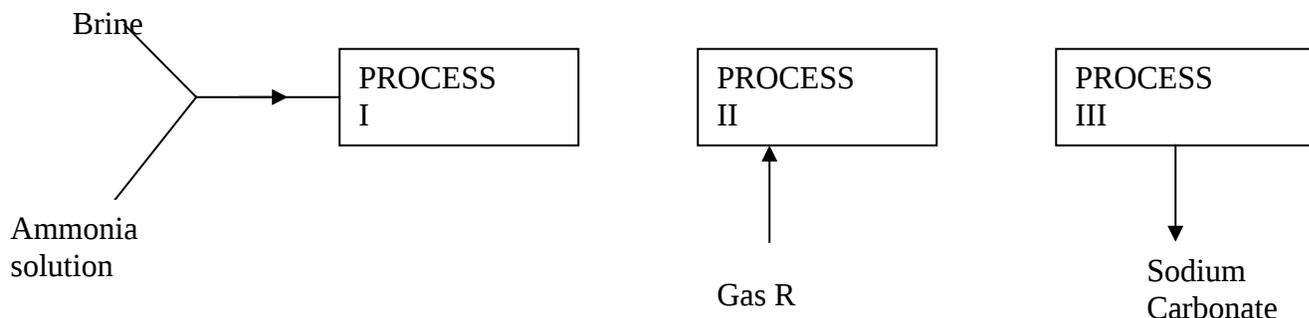
## CARBON AND ITS COMPOUNDS

DATE: .....

1.(a) State **one** use of graphite [1m]

(b) Both graphite and diamond are allotropes of element Carbon. Graphite conducts electricity whereas diamond does not. Explain [2m]

2. Below is a simplified scheme of Solvay process. Study it and answer the questions that follow:



(a) Identify gas R. [1m]

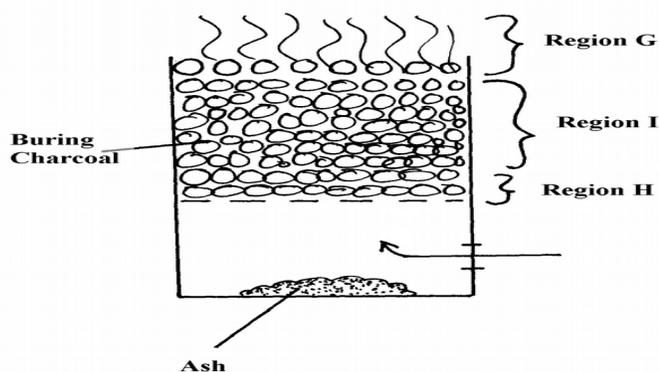
(b) Write an equation for the process III. [1m]

c) Give **one** use of sodium carbonate. [1m]

[Total 3m]

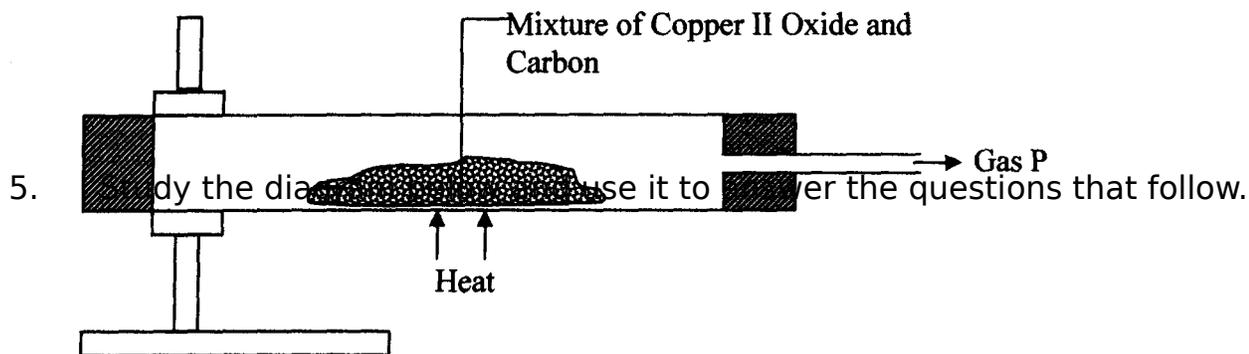
(a) A burning magnesium continues to burn inside a gas jar full of carbon (IV) oxide. Explain.

4. The diagram below shows a jiko when in use



1. Identify the gas formed at region **H**

(b) State and explain the observation made at region **G**



(a) State the observation made in the combustion tube.

(b) Write an equation for the reaction that took place in the combustion tube

(c) Give **one** use of **P**

6. (a) Identify **two** substances that are reacted to regenerate ammonia gas in the Solvay process

2. Write down a balanced chemical equation for the reaction above

7. When the oxide of element **H** was heated with powdered Carbon, the mixture glowed and Carbon (IV) oxide was formed. When the experiment was repeated using the oxide of element **J**, there was no apparent reaction

- i. Suggest **one** method that can be used to extract element **J** from its oxide
- ii. Arrange the elements **H, J** and Carbon in order of their decreasing reactivity

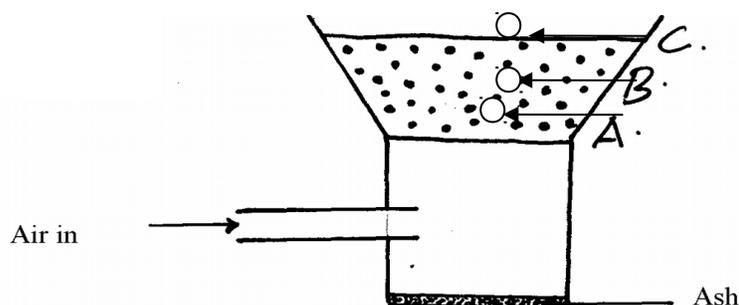
8. (i) Diamond and silicon (IV) Oxide have a certain similarity in terms of structure and bonding.  
Describe this similarity.

(ii) State **one** use of diamond

9. (a) What is allotropy?

(b) Diamond and graphite are allotropes of Carbon. In terms of structure and bonding explain why graphite conducts electricity but not diamond

10. The diagram below shows a charcoal stove with different regions



(a) Write an equation for the formation of the product in region **B**

(b) How would one avoid the production of the product at **B**? Give a reason for your answer