



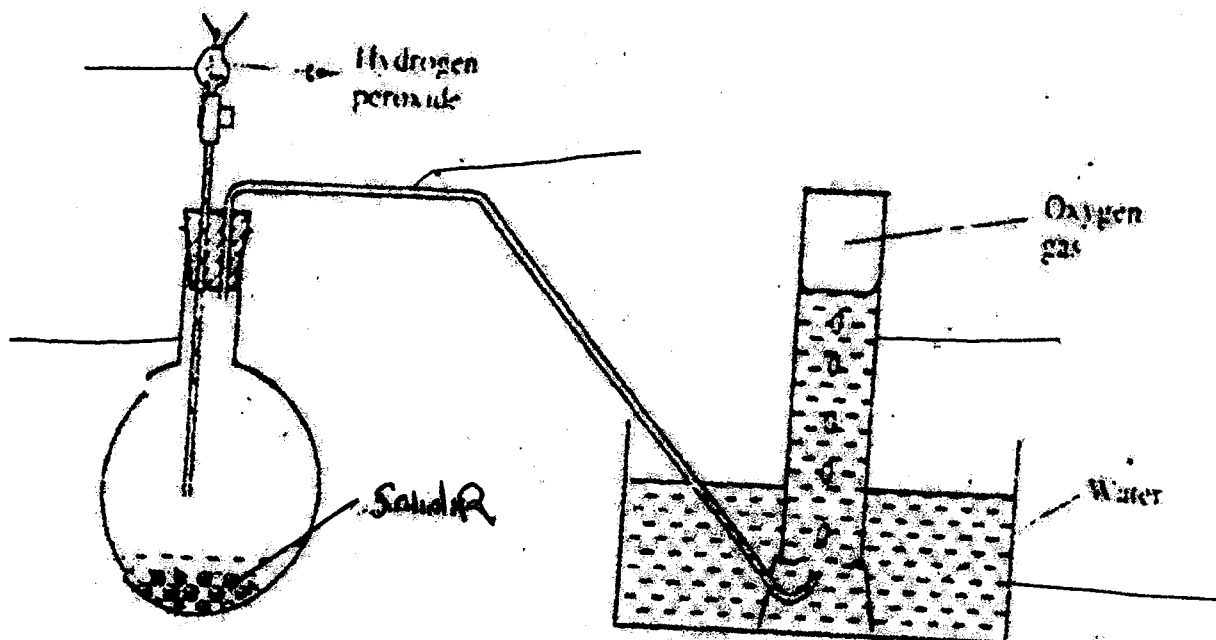
Adm No..... Name..... Class.....

FORM TWO CHEMISTRY MID TERM TEST

TERM I 2015

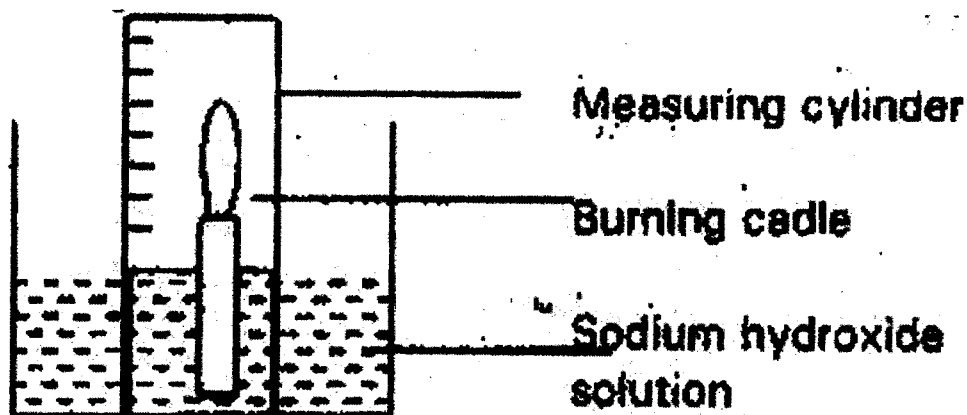
Time 1½ Hours

1. The diagram below is a set up for the laboratory preparation of oxygen gas.



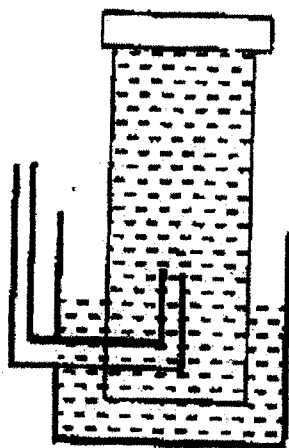
- Name solid R. (1mk)
- Write a word equation for the reaction that takes place in the flask. (1mk)
- Name the method of collection of oxygen shown in the diagram above. (1mk)
- On the diagram, label all the apparatus. (5mks)
- Give two commercial uses of oxygen. (2mks)

2. A candle was burnt using the apparatus shown below. The initial volume of measuring cylinder was  $90\text{cm}^3$ . The apparatus was allowed to cool and the volume of air in the measuring cylinder had dropped to  $70\text{cm}^3$ .

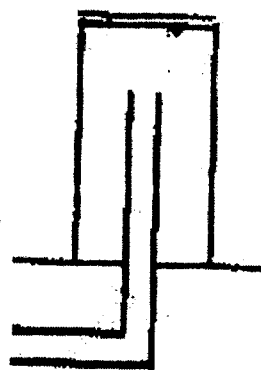


- Why was the volume recorded when the air was cooled? (1mk)
- What was the purpose of sodium Hydroxide? (1mk)
- Use the results given to calculate the percentage of oxygen in air. (3mks)

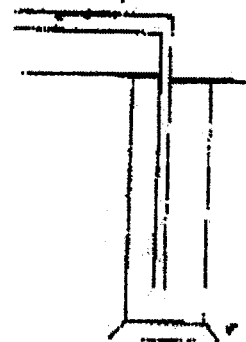
3. The diagram below represents three methods for collecting gases in the laboratory



Method (i)



Method (ii)



Method (iii)

a) Name the methods shown in the diagram (3mks)

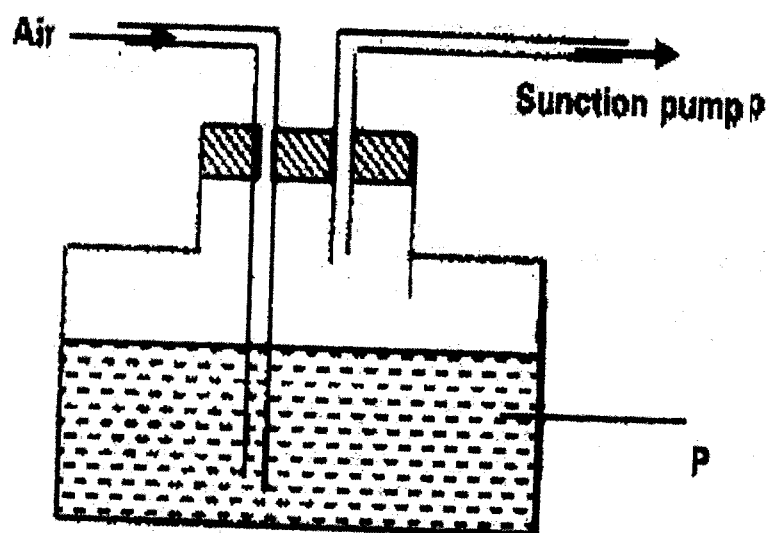
b) State with reasons the most suitable methods for collecting each of the following gases. (1mk)

i) Oxygen

ii) Hydrogen (1mk)

iii) Carbon (IV) Oxide (1mk)

4. The following diagram is used to show that air contains Carbon (IV) Oxide.



a) Name liquid P (1mk)

b) State the observation made on liquid P which will indicate the presence of carbon (IV) Oxide. (1mk)

c) Write a word for the reaction between P and Carbon (IV) Oxide. (1mk)

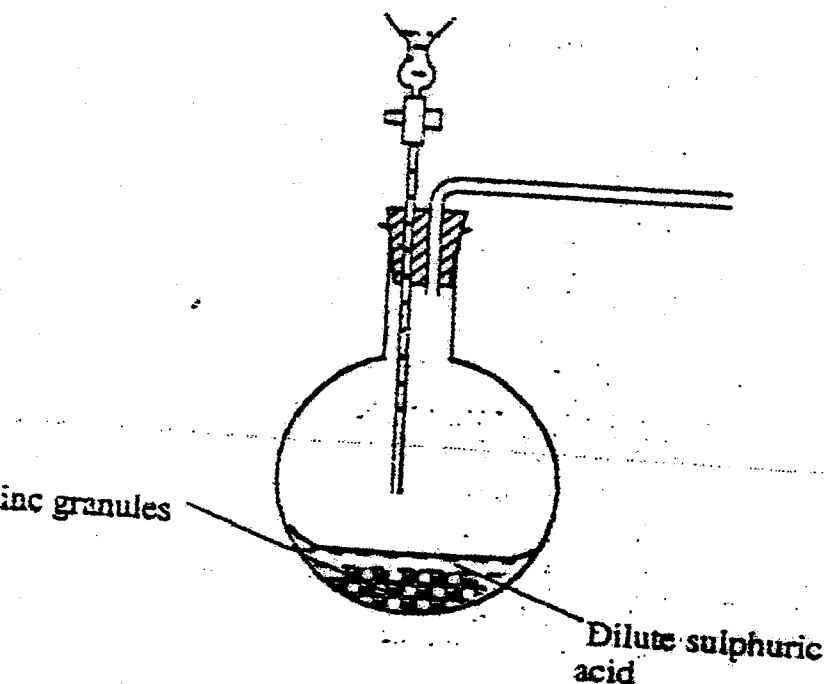
5. The following observations were made during the investigation of the reaction of metal with water:

- **When a piece of sodium metal was dropped in a bowl of water, it reacted vigorously, darting over the surface of water. Hydrogen gas was liberated.**
- **Iron metal did not react with cold water but red hot iron reacted with steam liberating hydrogen and tri- iron tetra oxide.**
- **Copper did not react with cold water but red hot iron reacted with steam liberating hydrogen a tri-iron tetra oxide.**
- **Copper did not react with water or steam.**

Answer the following questions

- a) Which metal is;
- i) The most reactive? (1mk)
  - ii) The least reactive? (1mk)
- b) i) What other product apart from hydrogen is formed in the reaction between sodium and water? (1mk)
- ii) Write a word equation for the reaction in (b) above (1mk)
- c) Comment on the PH of the resulting solution in (b) above. (1mk)
- d) Name another element which react in similar way to sodium (1mk)
- e) Give the test for hydrogen gas. (1mk)

6. The set up below was used to prepare hydrogen gas.



a) Complete the diagram to show how a dry sample of hydrogen gas can be collected. (3mks)

(b) Write a word equation for the reaction that took place in the round bottomed flask. (1mk)