

Gaining Apex Coaching Centre

(Where Toppers make..... Toppers)

Compiled by: Dapinderjeet Singh

Class 10th Test Metals and Non- Metals

1 Why is sodium kept immersed in kerosene oil?

2 Write equations for the reactions of

(i) iron with steam.

3 Samples of four metals A, B, C and D were taken and added to the following solution one by one.

The results obtained have been tabulated as follows:

Use the Table above to answer the following questions about metals A, B, C and D. 4

Metal	Iron (II) sulphate	Copper (II) sulphate	Zinc sulphate	Silver nitrate
A	No reaction	Displacement		
B	Displacement		No reaction	
C	No reaction	No reaction	No reaction	Displacement
D	No reaction	No reaction	No reaction	No reaction

(i) Which is the most reactive metal?

(ii) What would you observe if B is added to a solution of copper (II) sulphate?

(iii) Arrange the metals A, B, C and D in the order of decreasing reactivity.

4 Which gas is produced when dilute hydrochloric acid is added to a reactive metal? Write the chemical reaction when iron reacts with dilute H_2SO_4 .

5 What would you observe when zinc is added to a solution of iron (II) sulphate? Write the chemical reaction that takes place.

6 (i) Write the electron dot structures for sodium, oxygen and magnesium.

(ii) Show the formation of Na_2O and MgO by the transfer of electrons.

(iii) What are ions present in these compounds?

7. What chemical process is used for obtaining a metal from its oxide.

8. What are amphoteric oxides? Give two examples of amphoteric oxides?

9. What type of oxides are formed when non-metals combine with oxygen?

10. What types of ores are roasted

11. Explain the process of electro refining in details

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12. Why do ionic compounds have high melting points?

(iii) What are ions present in these compounds?

13. What chemical process is used for obtaining a metal from its oxide.

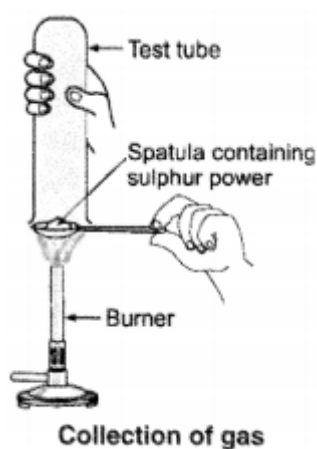
14. Pratyush took sulphur powder on a spatula and heated it. He collected the gas evolved by inverting a test tube over it, as shown in the figure.

(a) What will be the action of gas on

(i) dry litmus paper ?

(ii) moist litmus paper ?

(b) Write a balanced chemical equation for the reaction taking place.



15. What type of oxides are formed when non-metals combine with oxygen?

16. Give reasons:

(a) Platinum, gold and silver are used to make jewellery.

(b) Sodium, potassium and lithium are stored under oil.

(c) Aluminium is a highly reactive metal, yet it is used to make utensils for cooking.

(d) Carbonate and sulphide ores are usually converted into oxides during the process of extraction.

17. You must have seen tarnished copper vessels being cleaned with lemon or tamarind juice. Explain why these sour substances are effective in cleaning the vessels.

18. A man went door-to-door posing as a goldsmith. He promised to bring back the glitter of old and dull gold ornaments. An unsuspecting lady gave a set of gold bangles to him which he dipped in a particular solution. The bangles sparkled like new but their weight was reduced drastically. The lady was upset but after a futile argument the man beat a hasty retreat. Can you play the detective to find out the nature of the solution he has used?

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19. Give reasons why copper is used to make hot water tanks and not steel (an alloy of iron).

