AMIT AJMANI'S ACADEMY

D-16/82, SECTOR-7, ROHINI

PH: 9810476588, 9953371470

X CHEMISTRY CLASS TEST M.M.-30

Name of Student: _____ Class & Sub: _____

Topic of Test: METALS AND NON METALS No. 1 Date : _____

1. Define the term malleability and ductility with two egs. of each. 3
2. Why are our household electric wires coated with PVC or rubber? 1
3. Name the metals with low density and low melting points. 1
4. Metals like Ca and Mg start floating when reacted with water. Why? 2
5. Define the terms: Metallurgy, Mineral, Ore and Gangue 4
6. Show the formation of Na_2O and MgO by the transfer of electrons. What are the ions present in these compounds? 3
7. Define the term metalloid. 1
8. Why are metals good conductors of heat and electricity? 1
9. Which property of graphite is used in making electrodes? 1
10. Name two metals which react with nitric acid to evolve hydrogen gas. 1
11. Give balanced chemical equations for the reactions of :
    a. Iron with steam.
    b. Calcium and potassium with water.
    c. Iron reacts with dilute sulphuric acid.
    d. Zinc is added to a solution of iron sulphate. 4
12. State the reasons for the following: 3
    a. Al is used to make cooking utensils even it is quite reactive metal.
    b. Gold and silver are used for making jewellery.
    c. Copper is used to make hot water tanks & not steel (an alloy of iron)
13. What would you observe when Copper is added to a solution of iron (II) sulphate? Why? Write the chemical reaction that takes place 2
14. Write the electron dot structures for sodium, oxygen and magnesium. 3

ANSWERS

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X CHEMISTRY CLASS TEST M.M.-25

Name of Student: _____ Class & Sub: _____

Topic of Test: METALS AND NON METALS No. 2 Date : _____

1. Silver is the best conductor of electricity but still it is not used in our household electric wiring. Why? 1
2. Name two metals that can displace hydrogen from dilute acids and two metals which cannot. 2
3. How are Diamond and graphite an exception for non metals? 2
4. Name two metals which are soft. 1
5. Why metals like sodium and potassium are kept immersed in kerosene? 2
6. Ionic compounds conduct electricity in their molten state but not in their solid state. Explain the reason for that. 1
7. What types of oxides are formed by metals and non metals? 1
8. What are amphoteric oxides? Give two examples. 2
9. Show the formation of calcium oxide and magnesium chloride by the transfer of electrons. 2
10. Why no hydrogen gas evolves when a metal reacts with nitric acid? 1
11. Why do ionic compounds have high melting and high boiling points? 1
12. Pratush took sulphur powder on a spatula and heated it. He collected the gas evolved by inverting a test tube over it. What will be the action of gas on dry litmus paper and moist litmus paper? Write the chemical equation involved. 2
13. What would happen when a strip of copper is kept immersed in a solution of silver nitrate for some time? Write the reaction involved. 2
14. How would you show that silver is chemically less reactive than copper? Explain with reactions. 2
15. Name a metal and a non metal liquid at room temperature. 1
16. With chemical equations, prove that aluminium oxide is amphoteric oxide. 2

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X CHEMISTRY CLASS TEST M.M.-30

Name of Student: _____ Class & Sub: _____

Topic of Test: METALS AND NON METALS No. 3 Date : _____

1. Differentiate between calcinations and roasting with eg. 2
2. Name two substances used as reducing agents for reducing metal oxides. 1
3. What is Thermit reaction? Give equation and state its use. 3
4. Explain rusting of iron with reaction? State a few methods for preventing it. 4
5. Give flow chart for extraction of metal from ore of a metal of high reactivity. 2
6. How are oxides of more reactive metals reduced? 1
7. What is amalgam? 1
8. Define minerals and ores. 2
9. Explain why metal sulphides and metal carbonates are converted into metal oxides before reduction. 1
10. Mention the conditions required for rusting of iron. 1
11. Write the composition of the following alloys: Solder, Amalgam, Brass, Steel, Bronze and Stainless Steel. 6
12. Aluminium corrodes in moist air but it is widely used for making cooking vessels. Explain. 1
13. Give a flow chart diagram for the extraction of metal from the ore of a metal of low and medium reactivity. 3
14. Why pure gold is not used for making jewellery? What is to be done to make it fit for making jewellery? 2

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X CHEMISTRY CLASS TEST **M.M.-30**

Name of Student: _____ Class & Sub: _____

Topic of Test: METALS AND NON METALS No. 4 Date : _____

1. Give reaction to show what happens when aluminium powder is added to manganese dioxide? 2
2. State one limitation of carbon as a reducing agent. 1
3. What happens when iron is exposed to damp air? Explain with equation.2
4. What is galvanization? How and why is it done? 3
5. Summarize in a flow chart forms, the various steps which are involved in the extraction of pure metal from their ores. 4
6. The ores of many metals are oxides. Why? 1
7. Explain giving equations, how mercury is extracted from its cinnabar ore?3
8. Explain with a diagram, Electrolytic refining process for refining of metals.3
9. What are alloys? How and why are they prepared? 3
10. Why surface of some metals acquires dull appearance when exposed to air.1
11. Tarnished copper vessels are being cleaned with lemon or tamarind juice. Explain why these sour substances are effective in cleaning the vessels.2
12. Name two properties each of sodium & carbon in which their behaviour is not as expected from their classification as metals & non metals. 2
13. Write the composition of solder. Which property of solder is being used for welding electrical wires together? 2
14. Why silver articles become black after some time when exposed to air? 1

ANSWERS