**Karan Arora**  **R.L. Institute M: 9416974837**

**Max Time : 1 hr** **Class = 10th Science Test**  **Max Marks : 25**

**METAL & NON-METALS CODE : A**

1. Name two metals which melt at body temperature [ 1 ]
2. Which property of graphite is utilized in making electrodes? [ 1 ]
3. Why does calcium float in water? [ 1 ]
4. What is aqua regia? [ 1 ]
5. Give an example of a metal and a non-metal which is liquid at room temperature. [ 1 ]
6. Why do ionic compounds have high melting points? [ 2 ]
7. What are amphoteric oxides? Give two examples of amphoteric oxides. [ 2 ]
8. Generally when metal are treated with mineral acids, hydrogen gas is liberated but when metals (except Mg and Mn) are treated with HNO3, hydrogen is not liberated, why? [ 2 ]
9. Explain meaning of malleable and ductile. [ 2 ]
10. (i) How do you classify elements into metal and non-metals on the basis of their electronic configuration? choose metal and non-metal out of the following. [ 3 ]

, , , , .

(ii) What type of bond will be formed if :

(a) ‘A’ combines with ‘E’ (b) ‘A’ combines with ‘B’

1. (i) Write the electron dot structure of sodium, oxygen and magnesium. [ 3 ]

(ii) State the formation of Na2O and MgO by transfer of electrons.

(iii) What are the ions present in these compounds?

1. (i) Why is sodium kept immersed in kerosene oil. [ 3 ]

(ii) Write equation for the reaction of : (a) Iron with steam (b) Calcium with water.

1. Differentiate between metal and non-metal on the basis of their physical properties. [ 3 ]

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**Max Time : 1 hr** **Class = 10th Science Test**  **Max Marks : 25**

**METAL & NON-METALS CODE : B**

1. Name a metals which is best conductor of heat. [ 1 ]
2. Which property of graphite is utilized in making electrodes? [ 1 ]
3. Why is sodium kept immersed in kerosene oil. [ 1 ]
4. What is aqua regia? [ 1 ]
5. Name a metal which react with both hot water and steam. [ 1 ]
6. Which gas is produced, when dilute hydrochloric acid is added to a reactive metal? Write the chemical equation, when iron react with dilute H2SO4. [ 2 ]
7. What are amphoteric oxides? Give two examples of amphoteric oxides. [ 2 ]
8. Generally when metal are treated with mineral acids, hydrogen gas is liberated but when metals (except Mg and Mn) are treated with HNO3, hydrogen is not liberated, why? [ 2 ]
9. Explain meaning of malleable and ductile. [ 2 ]
10. Differentiate between metal and non-metal on the basis of their physical properties. [ 3 ]
11. Show formation of CaO and MgCl2.  [ 3 ]
12. (i) Write the electron dot structure of sodium, oxygen and magnesium. [ 3 ]

(ii) State the formation of Na2O and MgO by transfer of electrons.

(iii) What are the ions present in these compounds?

1. Name two metals which react violently with cold water. Write any observation you would make when such a metal is dropped into water. How would you identify the gas evolved, if any during the reaction [ 3 ]

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