

Chapter-3

Worksheet-1

Q.1. Fill in the Blanks

- i. Metals are _____ conductors of heat and electricity. Non-metals are generally _____.
- ii. Most metal oxides are _____ in nature whereas non-metal oxides are _____ or _____.
- iii. A _____ reactive metal displaces a _____ reactive metal from its salt solution.
- iv. Metal oxides which react with both acids as well as bases to produce salt and water are called _____ oxides.
- v. A non-metal, which is liquid at non temperature is _____.

Q.2. True/False

- i. . Hydrogen is the most abundant element in the universe.
- ii. 2. Non-metals are good conductors of heat and electricity.
- iii. 3. Non-metals are electronegative elements as they form negative ions by gaining electrons.
- iv. 4. Gallium and Cesium metals have low melting points.
- v. 5. Copper reacts with dilute sulphuric acid to form copper sulphate and hydrogen gas.

Q.3. Which of the following property is generally not shown by metals?

- (a) Electrical conduction
- (b) Sonorous in nature
- (c) Dullness
- (d) Ductility

Q.4.The ability of metals to be drawn into thin wire is known as

- (a) Ductility
- (b) Malleability
- (c) Sonorousity
- (d) Conductivity

Q.5. Which one of the following metals do not react with cold as well as hot water?

- (a) Na
- (b) Ca
- (c) Mg
- (d) Fe

Q.6.What happens when calcium is treated with water?

- (i) It does not react with water.
 - (ii) It reacts violently with water.
 - (iii) It reacts less violently with water.
 - (iv) Bubble of hydrogen gas formed stick to the surface of calcium.
- (a) (i) and (iv)
 - (b) (ii) and (iii)
 - (c) (i) and (ii)
 - (d) (iii) and (iv)

Q.7.Generally, metals react with acids to give salt and hydrogen gas.
Which of the following acids does not give hydrogen gas on reacting with metals (except Mn and Mg)?

- (a) H_2SO_4
- (b) HCl
- (c) HNO_3
- (d) All of these

Q.7. The composition of aqua regia is:

- (a) Dil. HCl : Conc. HNO_3
3 : 1
- (b) Conc. HCl : Dil. HNO_3
3 : 1
- (c) Conc. HCl : Conc. HNO_3
3 : 1
- (d) Dil. HCl : Dil. HNO_3
3 : 1

Q.8. Metals are refined by using different methods. Which of the following metals are refined by electrolytic refining?

- (i) Au
- (ii) Cu
- (iii) Na
- (iv) K
- (a) (i) and (ii)
- (b) (i) and (iii)

(c) (ii) and (iii)

(d) (iii) and (iv)

Q.9. Galvanisation is a method of protecting iron from rusting by coating with a thin layer of:

(a) Gallium

(b) Aluminium

(c) Zinc

(d) Silver

Q.10. Stainless steel is a very useful material for our life. In stainless steel, iron is mixed with:

(a) Ni and Cr

(b) Cu and Cr

(c) Ni and Cu

(d) Cu and Au

Q. 11. Name an alloy of

(i) aluminium used in the construction of aircraft.

(ii) lead used in joining metals for electrical work.

Q. 12. Give two examples each of the metals that are good conductors and poor conductors of heat respectively.

Q.13. Metals replace hydrogen from dilute acids, whereas non-metals do not. Why?

Q. 14. Why do metals not evolve hydrogen gas with nitric acid?

Q.15. Give the reaction involved during extraction of zinc from its ore by:

(a) roasting of zinc ore

(b) calcination of zinc ore

Q.16. What is a thermit reaction? State one use of this reaction.

Q.17. What is 24-carat gold? How will you convert it into 18-carat gold?

Q.18. What would happen to iron railings on the road side if they are not painted? Why does it happen so?

Q. 19. Explain why, the galvanised iron article is protected against rusting even if the zinc layer is broken.

Q.20. Why are food cans tin-plated instead of zinc plated though zinc is cheaper than tin?