

Class: X
Subject: chemistry
Topic: metals and non-metals
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1. Which of the following is the best electrical conductor?

- (a) Gold
- (b) Silver
- (c) Copper
- (d) Aluminium

Sol: (b) silver is best electrical conductor as it has less resistance

2. Which of the following is NOT True for metals?

- (a) Generally, metals are malleable.
- (b) Metals are good conductors of heat.
- (c) Metals are electronegative by nature.
- (d) Metals displace hydrogen gas from dilute acids.

Sol: (c) Metals are electropositive by nature

3. In general, the number of electrons in the outermost shell of a metal atom is

- (a) 1
- (b) 1 to 3
- (c) 5 to 8
- (d) 8

Sol:(b) In case of metal atom it lies between 1 to 3.

4. Bauxite is an ore of which metal

- (a) Iron
- (b) aluminium
- (c) copper
- (d) tin

Sol: (b) fact

5. Which of the following pairs will give displacement reactions?

- (a) NaCl solution and copper metal
- (b) $MgCl_2$ solution and aluminium metal
- (c) $FeSO_4$ solution and silver metal
- (d) $AgNO_3$ Solution and copper metal

Sol: (d) $AgNO_3$ solution with copper metal will form copper nitrate

6. Which of the following methods is suitable for preventing an iron frying pan from rusting?

- (a) Applying grease
- (b) Applying paint
- (c) Applying a coating of zinc
- (d) All of the above

Sol: (c) galvanization technique by using Zn coating over Iron.

7. An element reacts with oxygen to give a compound with a high melting point. This compound is also soluble in water. The element is likely to be

- (a) Calcium
- (b) Carbon
- (c) Silicon
- (d) Iron

Sol: (a) Ca gives CaO which is soluble in water and gives slacked lime $Ca(OH)_2$

8. Food cans are coated with tin and not with zinc because

- (a) Zinc is costlier than tin
- (b) Zinc has a higher melting point than tin.
- (c) Zinc is more reactive than tin
- (d) Zinc is less reactive than tin

Sol: (c) $Zn > Sn$ in reactivity

9. Haematite is an ore of

- (a) Iron
- (b) aluminium
- (c) copper
- (d) tin

sol: (a) fact

10. What are the constituents of alloy solder?

- (a) Copper, zinc
- (b) Copper, tin
- (c) Lead, Zinc
- (d) Lead, tin

Sol: (d) solder is an alloy of Pb and Sn

11. Which of the is more reactive?

- (a) Hg
- (b) Al
- (c) Ag
- (d) Ca

Sol: (d) Ca is alkaline earth metal and most reactive among these.

12. By which reaction metal is obtained from metal oxide?

- (a) Liquefaction
- (b) Reduction
- (c) Calcination
- (d) Roasting

Sol: (b) Reduction

13. Which non-metallic element is in liquid form?

- (a) Carbon
- (b) Hydrogen
- (c) Bromine
- (d) Phosphorus

Sol: (c) fact

14. Which of the following non-metal is good conductor of electricity?

- (a) Graphite
- (b) Phosphorus
- (c) Hydrogen
- (d) Bromine

Sol: (a) fact

15. Which of the following is not a half-metal?

- (a) Silicon,
- (b) Boron,
- (c) Arsenic,
- (d) Chlorine

Sol: (d) chlorine is a non-metal

16. Of these, the most ductile metal is _____

- (a) Al
- (b) Au
- (c) Cu
- (d) Ag

Answer: (b)

Sol: Gold most ductile.

17. Of these, the least dense metal is _____

- (a) Hg
- (b) Au
- (c) Cu
- (d) Na

Answer: (d)

Sol: (d) fact

18. Of these, the most reactive metal is _____

- (a) Fe
- (b) Zn
- (c) Al
- (d) K

Answer: d

Sol: (d) Potassium is alkali metal

19. Which of the following is displaced by 'Cu'?

- (a) Fe^{2+}
- (b) Ag^+
- (c) Zn^{2+}
- (d) Al^{3+}

Answer: b

Sol: (b) Cu is more reactive than Ag.

20. Which of the following metals does not displace H_2 gas from dilute HCl or dilute H_2SO_4 ?

- (a) Mg
- (b) Cu
- (c) Zn
- (d) Al

Answer: b

Sol: (b) Reduction Potential is above Hydrogen. So it can't replace it.