

## General principles and processes of isolation of elements

- Composition of azurite ore is  
a.  $\text{Cu}_2\text{S}$    b.  $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$    c.  **$2 \text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$**    d.  $\text{CuFeS}_2$ .
- Which form of Iron has the maximum carbon content?  
a. Stainless steel   b. mild steel   c. **pig iron**   d. wrought iron
- Arrange the following in the increasing order of carbon content.  
a. Wrought iron < cast iron < steel  
**b. Wrought iron < Steel < cast iron**  
c. Cast iron < steel < wrought iron  
d. Steel < wrought iron < cast iron
- During roasting,  
**a. The sulphide ore gets converted to oxide ore**  
b. The carbonate ore gets converted to oxide ore  
c. The oxide ore gets converted to metal  
d. The impurities present in ore is removed
- The % of silver in german silver is  
a. 10%                      b. 25%                      c. 50%                      d. **0%**
- Which of these is used in making permanent magnets?  
a. Invar steel   b. **Alnico**                      c. Magnalium                      d. bronze
- In the Hall process of electrolysis of fused alumina. Cryolite is added to \_\_\_\_\_.  
a. To increase the melting point of alumina.  
b. To decrease the melting point of alumina.  
c. To increase the conductivity.  
**d. Both b and c**
- In blast furnace, maximum temperature is in  
a. Zone of fusion   b. **zone of combustion**   c. zone of slag formation  
d. zone of reduction.
- The principle employed in froth floatation process is based on  
a. Difference in solubility of ore and gangue particles.  
b. Magnetic properties of gangue and ore.  
c. Preferential wetting of gangue particles by oil.  
**d. Preferential wetting of ore particles by oil.**

10. Which of the following is not concentrated by froth floatation process?  
a. Copper pyrites b. cinnabar c. **pyrolusite** d. zinc blende.
11. The slag formed in the extraction of Iron is \_\_\_\_\_  
a.  $\text{FeSiO}_3$  b.  **$\text{CaSiO}_3$**  c.  $\text{Al}_2\text{O}_3$  d.  $\text{Na}_2\text{SiO}_3$
12. In aluminothermite process, aluminium acts as a \_\_\_\_\_  
a. Oxidising agent b. flux c. **reducing agent** d. precipitating agent
13. A flux is  
a. An acidic substance b. a basic substance  
c. a neutral substance d. **either a or b or c**
14. Zone refining is employed for  
a. reduction of metal oxide b. purification of ore  
c. concentration of ore d. **purification of metal**
15. Refining of nickel is done by  
a. Halls Process b. **monds process** c. Baeyers process  
d. zone refining
16. Which of the following ore has 2 different metal atom?  
a. Haematite b. Magnetite c. Pyrolusite d. **copper pyrite**
17. Anode mud obtained during electro refining of copper contains  
a. Pb and Zn b. Sn and Ag c. Fe and Ni d. **Ag and Au**
18. Extraction of zinc from zinc blende is achieved by  
a. electrolytic reduction .  
b. **roasting followed by reduction with carbon**  
c. roasting followed by reduction with another metal.  
d. roasting followed by self reduction.
19. Purification of bauxite is done by  
a. Levigation b. **leaching** c. electrolysis d. magnetic separation.
20. The role of pine oil in froth floatation process.  
a. **collector** b. froth stabilizer c. depressants d. coagulate
21. In the extraction of Iron, charge is a mixture of  
a. limestone and coke b. **conc ore, limestone and coke**  
c. conc ore and limestone d. conc ore and coke.
22. In electrolytic refining of copper, pure copper is deposited at  
a. anode b. **cathode** c. floats on electrolyte  
d. walls of the vessel

23. Zirconium and titanium is refined by
- a. Distillation
  - b. Mond's process
  - c. liquation .
  - d. **van arkel method**
24. In Ellingham diagram,
- a.  $\Delta G^\circ$  values increase with increase in temperature.
  - b.  $\Delta G^\circ$  value is positive for HgO at all temperatures.
  - c. **More negative the  $\Delta G^\circ$  value, greater is the reducing power of the element.**
  - d. all are correct