

Q1. Flux is used to

a) remove silica

**b) remove silica & undesirable
metal oxide**

**c) remove all impurities from
Ores**

d) reduce metal oxide is used to

Q2. Which of the following process is used in the extractive metallurgy of magnesium?

- a) Fused salt electrolysis**
- b) Self reduction**
- c) Aqueous solution electrolysis**
- d) Thermite reduction**

Q3. When compared to ΔG^0 for the formation of Al_2O_3 , ΔG^0 the formation of Cr_2O_3 is

- a) Higher**
- b) Lower**
- c) Same**
- d) Cannot be predicted**

Q4. The chemical process in the production of steel from haematite involves

- a) Reduction**
- b) Oxidation**
- c) Reduction followed by oxidation**
- d) oxidation followed by reduction**

Q5. Coke is a common reducing agent for most of the metal oxides because

- a) Coke combines with oxygen to form oxides**
- b) Coke can form carbides with metals**
- c) Coke can decompose metal oxides**
- c) Formation of carbon monoxide from coke decreases the free energy.**

Q6. Which of the following is not an Ore of magnesium ?

- a) Dolomite**
- b) Carnallite**
- c) Sea water**
- d) Calamine**

**Q7. Sodium cyanide is used
in the extraction of**

a) Iron

b) Copper

c) Magnesium

d) Gold

Q8. The variation of ΔG^0 for the formation of oxides, sulphides

a) Carlson

b) Drude

c) T-Ellingham

d) Pauling

Q9. When Zinc silver alloy is distilled , zinc distils over at

- a) 1500⁰C**
- b) 1200⁰C**
- c) 906⁰C**
- d) 600⁰C**

Q10. Which property of the following is used to extract gold by hydrometallurgy

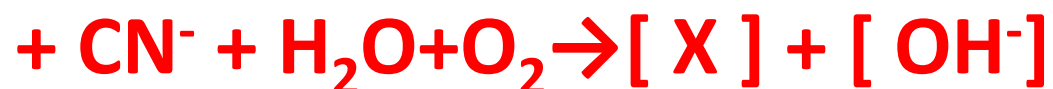
- a) Of being less reacted**
- b) Of being electropositive**
- c) To form salt which are water soluble**
- d) To form complexes which are water soluble**

**Q11. Most abundant ore of iron
is**



Q12. In the process of extraction of gold

Roasted gold ore



Identify the complexes [x] & [y]



Q13. Steam is passed through the tank in Nelson's cell its function is to

- a) To keep the electrolyte warm**
- b) To keep the pores of U- Tube open**
- c) Both (a) & (b)**
- d) To keep the electrolyte cool**

Q14. The catalyst used in Haber's process is molybdenum. The function of Mo is to

- a) increase the rate of combination of gases**
- b) remove the impurities present in the gases**
- c) increase the activity of the catalyst**
- d) establish the Equilibrium**

Q15. Which one of the following metal ions is coloured



Q16. Which one of the following shows highest magnetic moment



Q17. Which of these transition elements show the highest oxidation state

a) Mn

b) Fe

c) V

d) Sc

Q18. The oxidation state of chromium in the reaction between KI and acidified potassium dichromate solution is

a) +4

b) +6

c) +2

d) +3

Q19. Titanium shows magnetic moment of 1.73 BM in its compound. What is the oxidation number of Ti in the compound?

a) +1

b) +4

c) +3

d) +2

Q20. In which of the following compound manganese is amphoteric?

