

Topic :- THE D-AND F-BLOCK ELEMENTS

- The nitrate of which metal leaves metallic globule on heating strongly?
a) $\text{Cu}(\text{NO}_3)_2$ b) AgNO_3 c) NaNO_3 d) $\text{Pb}(\text{NO}_3)_2$
- Mond process is used in the extraction of:
a) Co b) Ni c) Mo d) Zn
- Blue colour/precipitate will be obtained when $\text{K}_4[\text{Fe}(\text{CN})_6]$ reacts with:
a) Fe(II) ions b) Cu(II) ions c) Fe(III) ions d) Cu(I) ions
- Two of the constituents of German silver are
a) Ag + Cu b) Ag + Zn c) Cu + Zn d) Cu + Sn
- A metal is left exposed to air for sometime. It becomes coated with basic green carbonate. The metal is:
a) K b) Cu c) Zn d) Al
- Zn and Cd do not show variable valency, because:
a) They have only two electrons in outermost subshells
b) Their *d*-subshells are complete
c) Their *d*-subshells are incomplete
d) They are relatively soft metals
- One of the important uses of ferrous sulphate is in the:
a) Manufacture of blue-black ink
b) Manufacture of chalks
c) Preparation of hydrogen sulphide
d) Preparation of sulphur dioxide
- Blue vitriol is:
a) $\text{CuSO}_4 \cdot 7\text{H}_2\text{O}$ b) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ c) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ d) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$

9. Zn does not show variable valency because of
 a) Complete d -subshell b) Inert pair effect c) $4s^2$ -subshell d) None of these
10. Which of the following statement (s) is/are correct with reference to the ferrous and ferric ions?
 a) Fe^{3+} given brown colour with ammonium thiocyanate
 b) Fe^{3+} gives brown colour with potassium ferricyanide
 c) Fe^{3+} gives red colour with potassium thiocyanate
 d) Fe^{2+} gives red precipitate with potassium ferricyanide
11. In vapour state $Cu(NO_3)_2$ and $Cu_2(CH_3COO)_4 \cdot 2H_2O$ exist as:
 a) Dimer, monomer b) Monomer, dimer c) Monomer, monomer d) Dimer, dimer
12. Which oxide is least stable at room temperature?
 a) CuO b) Ag_2O c) ZnO d) Sb_2O_3
13. Which of the following metal is correctly matched with its ore?

Metal	Ore		
a) Zinc	Calamine	b) Silver	Ilmenite
c) Magnesium	Cassiterite	d) Tin	Azurite
14. Iron is obtained on large scale from haematite(Fe_2O_3):
 a) By reduction
 b) By oxidation
 c) By reduction followed by oxidation
 d) By oxidation followed by reduction
15. Which oxide of manganese is amphoteric?
 a) MnO b) MnO_2 c) Mn_2O_7 d) Mn_2O_3
16. Which among the following metals does not dissolve in aqua regia?
 a) Pt b) Pd c) Au d) Ir
17. The one which has lowest ox. no. of Hg:
 a) $Hg(NO_2)_2$ b) $HgCl_2$ c) $Hg(NO_3)_2$ d) Hg_2Cl_2
18. The fraction of chlorine precipitated by $AgNO_3$ solution from $[Co(NH_3)_5Cl]Cl_2$ is:
 a) $1/2$ b) $2/3$ c) $1/3$ d) $1/4$

19. Which statement is correct?
- a) Cd rods are used in atomic reactors to slow down nuclear reaction
 - b) Cd is a good absorber of neutrons
 - c) CdS is used as pigment
 - d) All of the above
20. Acidified solution of chromic acid on treatment with hydrogen peroxide yields
- a) $\text{CrO}_5 + \text{H}_2\text{O}$
 - b) $\text{H}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{O} + \text{O}_2$
 - c) $\text{Cr}_2\text{O}_3 + \text{H}_2\text{O} + \text{O}_2$
 - d) $\text{CrO}_3 + \text{H}_2\text{O} + \text{O}_2$

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