Multiple Choice Questions

1) d and f blocks elements are called:

a) s block

b) f block

c) transition elements

d) actinide

2) Zn, Cd, Hg are not regarded as transition elements because they have completely filled:

a) f orbitals b) d orbitals c) s orbitals d) p orbitals

3) Mn has maximum oxidation states, and goes up to:

a) +8 b) +10 c) +7 d) +2

4) Mixture of ZnO and CraO3 is used for the manufacture of _____.

a) ethanol

b) acetone

c) methyl alcohol

d) primary alcohol

5)_____ is used to oxidize SO2 to SO3 in the manufacture of H2SO4.

a) V205 b) H2SO4 c) PO4 d) SO2

6)_____ is mixture of two or more than two metals.

a) transition elements

b) alloy

c) brass

d) nichrome

7) Brass is a strong alloy of

a) barium b) magnesium c) manganese d) copper

8) Those compounds which contain complex molecules or complex ions capable of independent existence are called

a) coordination compound b) organometallic compound

c) alloys d) ligands

9) A metal atom is surrounded by a number of

a) alloys b) ligands

c) complex compound d) coordination sphere

10) Those ligands which how two donatable electron pairs are called.

a) polydentate ligands b) biseriate ligands c) ligands d) alloys

11) Potassium dichromate (VI) solution acidified which dilute sulphuric acid is commonly as an

a) reducing agent b) oxidising agents

c) reduction d) none

12) When Potassium manganate solution run into the reaction, the solution becomes.

a) odorless b) colourless c) tasteless d) bitter

13) Chromate (VI) ions will give a bright yellow precipitate of _____

a) chromium b) sulphuric acid

c) HCl d) lead chromate

14) Manganese can exist in a number of oxidation states, but most stable in an oxidation state of

a) +2, +4 and +7

b) +3, +6 and +8

c) +1, +2 and +7

d) +6, +3 and +6

15) Complete the following reaction.

a) $[Mn(H_2O)_6]2 + 2OH \longrightarrow [Mn(H_2O)_4(OH)_2] + 2H_2O$

b) $[Mn(H_2O)_3]2 + 2H_2O \longrightarrow [Mn(H_2O)_4(OH)_2] + 2H_2O$

c) $[Mn(H_2O)_5]\ 2+ 2H_2O \longrightarrow [Mn(H_2O)_4(OH)_2] + 2H_2O$

d) $[Mn(H_2O)_{10}]2 + 6H_2O \longrightarrow [Mn(H_2O)_4(OH)_2] + 2H_2O$

16) Coinage metals are actually.

a) halogens

b)alkali metals

c) transition metals

d) Alkaline earth metals

17) Which are repelled by magnetic field?

a) paramagnetic

b) ferromagnetic

c) diamagnetic

d) none

18) The unit of Magnetic moments is

a) coulombs (Q)

b) amperes (A)

c) bohr magneton (BM)

d) watts (W)

19) Potassium manganate (VII) is usually used in

a) neutral or alkaline solution

b) alkali solution

c) transition metals

d) oxidising agent

20) Potassium magnate (VII) oxidizes

a) carbon-hydrogen bonds

b) carbon-carbon double bonds

c) carbon-oxygen bonds

d) none

21) Alkaline potassium manganate (VII) solution oxidizes any hydrocarbon side chain attached to a benzene ring back to a single

a) CH_3

b) COOH group

c) CH_3OH

d) $KMnO_4$

22) Potassium magnate (VII) solution is always used in

a) basic solution

b) acidic solution

c) neutral solution

d) both acidic as well as basic solution

23) Iron exists in two common oxidation state

a) +2 (Fe^{2+}) and +3 (Fe^{3+})

b) +4 (Fe^{4+}) and +2 (Fe^{2+})

c) +5 (Feb and +6 (Fe^{6+})

d) +3 (Fe^{3+}) and +4 (Fe^{4+})

24) (Fe^{2+}) ion is thus a

a) oxidizing agent

b) reducing agent

c) oxidizing agent as well as reducing agent

d) none

25)Ammonia can act as both a

a) base and a liquid

b) acid and a liquid

c) acid and a base

d) base and neutral

26)Complete the following reaction. 2[Fe$(H_2O)_6]^{3+}$+3$CO_3{}^{2-}$→

a] 2 Fe$((H_2O)_3(OH)_3$] + 3 CO_2+ 3 H_2O

b] 2 [Fe$((H_2O)_3(OH)_6]$ +6 CO_2+ H_2O

c] [Fe [$(H_2O]$ $(OH)_6]]$ + CO_2 + H_2O

d] [Fe [(H_2O) $(OH)_6]$]+ 2CO_2+ H_2O

Answers

1)	c)	**2)**	b)	**3)**	c)	**4)**	c)
5)	a)	**6)**	b)	**7)**	d)	**8)**	a)
9)	b)	**10)**	b)	**11)**	b)	**12)**	b)
13)	d)	**14)**	a)	**15)**	a)	**16)**	b)
17)	c)	**18)**	c)	**19)**	a)	**20)**	b)
21)	b)	**22)**	d)	**23)**	a)	**24)**	b)
25)	a)	**26)**	a)				