# Chemistry 2013

**3. Orbital is**

(a) circular path around the nucleus in which electrons are revolves
(b) space around the nucleus where the probability of finding the electron is maximum
(c) amplitude of electrons wave
(d) None of the above

**Ans.(b)**

**7. In the oxyacids of chlorine, Cl—O bond contains**

(a) dit — *dit* bonding
(b) *dn* — pit bonding
(c) pit — pit bonding
(d) None of the above

**Ans.(b)**

**8. Anhydrous MCI3 fume in air due to**

(a) oxidation (b) hydrolysis
(c) reduction (d) hydrogenation

**Ans.(b)**

**13. Which of the following reaction doesn't support the acidic nature of alkyne?**

(a) Reaction with HBr
(b) Reaction with Grignard reagent
***(c)*** Reaction with ammoniacal %ilvcr salt
(d) Reaction with metallic sodium

**Ans.(a)**

**18. Complete hydrolyses of cellulose gives**

(a) D-fructose (b) D-ribose
(c) D-glucose (d) L-glucose

**Ans.(c)**

**21. Benzaldehyde condenses with N,N-dimethyl aniline in presence of anhydrous ZnCI2 to give**
(a) azo dye (b) malachite
(C) michlers ketone (d) buffer yellow

**Ans.(b)**

**22. Which of the following reactions is given by only primary amines?**

(a) Reaction with HNO2
(b) Reaction with chioruform and alcoholic KOH
(C) Reaction with *acetyl* chloride
(d) Reaction with Grignard reagent

**Ans.(b)**

**26. Aldehyde not showing cannizzaro's reaction is**

(a) paraldehyde (b) choraI
(c) formaldehyde (d) acetaldehyde

**Ans.(d)**

**28. Which of the tollowing statements is not correct?**

(a) All alcohols are miscible with water
(b) Only lower alcohols are miscible with water

**(C)** All alcohols are not poisonous
(d) Methanol IS poisofloUS

**Ans.(a)**

**29. Cyclohexanol is**

(a) phenol (b) **1** alcohol
(c) 2 alcohol (d) 3 alcohol

**Ans.(c)**

**30. In the manufacture of ethanol from sugar the enzymes are**

(a) diastase and zymase
(b) maltase and zymase
(c) diastase and invertase
(d) invertase and zvmase

**Ans.(d)**

**31. The action of chioral on chlorobenzene gives**

(a) BIIC (d) DIYI
(C) g:irnmext'ne (d) lindanc

**Ans.(b)**

**32. Vhich halide will 1x least reactive in repcct to hydrolysis?**

(a) vinyl chloride (b) ally1 chloride
(c) ethyl chloride (d) t-butyl chloride

**Ans.(a)**

**33. By Wurtz reaction, a mixture of methyl iodide and ethyl iodide gives**

(a) butane
(b) ethane
(c) propane
(d) a mixture of above three

**Ans.(d)**

**34. The cyanide process is used for obtaining**

(a) Cu (b) Na
(C) Zn (d) Ag

**Ans.(d)**

**35. Which of the following ore does not represent the ores of iron?**

(a) Cassitente (b) Limonite
(c) Haenatitc (d) Magnetite

**Ans.(a)**

**36. vanArkel method of punficati'n of metals involves converting the metal to a**

(a) volatile stable compound
(b) non.volatilc stable compound
(c) volatile unstable compound
(d) None of the above

**Ans.(a)**

**37. The tirst element of rare earth metal is**

(a) cerium (b) cesium
(C) lanthanide (d) actinide

**Ans.(a)**

**38. Which of the following transitions involves maximum amount of energy?**

*(a)M_(g)*— M(g)
(b)M_(g) –m+
*(c)M(S) -M2+(g)*
*(d)M2+(g)-m3+(g)*

**Ans.(d)**

**39. Transition metal with low oxidation number will act as**

(a) an oxidising agent (b) a base
(c) an acid (d) None of these

**Ans.(a)**

**40. Chloride of which of the following element is coloured?**

(a) Hg (b) Ag
(c) Co (d) Zn

**Ans.(c)**

**41. Spiegeleisn i an alloy of**

(a) Fe, Co and Cr (b) Fe, Co and Mg
(c) Fe. Mg. and C (d) Fe, C and Mn

**Ans.(d)**

**44. Which of the following is a wrong statement?**

(a) Ni(CO)4 has zero oxidation number for Ni
**(b)** Ni(CO)4 has oxidation number +4 for Ni
(C) Ni is metal
(d) ***CO*** is gas

**Ans.(b)**

**46 Standard electrode porernial of NHE a 298 K is**
(a)0.OSV (b)0.10v
(c) **0.50 V** (d) 0.00 **V**

**Ans.(d)**

**49. Multirnolccular colloids are present in**

(a) soap solution (b) sol of proteins
(c) sol of gold (d) All of these

**Ans.(c)**

**50. In physical adsorption, the gas molecules are held by solid surfaces through**

(a) stiong chemical forces
(b) van der waals' forces
(c) metallic bonds
d) gravitational forces

**Ans.(b)**

**51. The osmotic pressure of a 5% (wt./voi) solution of cane sugar at 150C is**

(a) 3.078 atm (b) 4.078 atm
(c) 5.078 atm (d) 2.45 atm

**Ans.(c)**

**53. The p11 of a solution is increased from 3 to 6. its H' ion concentration will be**

(a) reduced to half
(b) doubled
(c) reduced by 1000 times
(d) increased by 1000 times

**Ans.(c)**

**56. Radioactive decay is a**

(a) first order reaction
(b) zero order reaction
(c) second order reaction
(d) third order reaction

**Ans.(a)**

**59. An ideal gas at constant temperature and pressure expands, then Its**

(a) internal energy remains same
(b) internal energy decrease
(c) internal energy increases
(d) entropy first increases and then decreases

**Ans.(a)**