



CHEMISTRY

- Crystalline form in which, litharge usually exist are:
 - Monoclinic and Tetragonal
 - Cubic and hexagonal
 - Rhombic and Tetragonal
 - Triclinic and Orthorhombic
- Sodium silicate is a salt of
 - H_2SiO_3
 - HSiO_3
 - SiO_2
 - $\text{H}_2\text{Mg}_3(\text{SiO}_3)_4$
- When a hot concentrated solution of borax is treated with conc. H_2SO_4 , crystals of _____ acid are produced.
 - HBO_2
 - H_3BO_3
 - $\text{H}_2\text{B}_4\text{O}_7$
 - $\text{H}_6\text{B}_4\text{O}_9$
- Feldspar, potash mica and zircon are the famous minerals of
 - C
 - Si
 - Al
 - Fe
- Which metal is used in the thermite process because of its activity?
 - Iron
 - Copper
 - Aluminium
 - Zinc
- Chemical composition of colemanite is
 - $\text{Ca}_2\text{B}_6\text{O}_{11} \cdot 5\text{H}_2\text{O}$
 - $\text{CaB}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$
 - $\text{NaB}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$
 - $\text{CaB}_5\text{O}_9 \cdot 8\text{H}_2\text{O}$
- Which element forms an ion with charge +3.
 - Be
 - Al
 - C
 - Si
- Tinical is a mineral of
 - Al
 - B
 - Si
 - C
- Substance which is found in dried up lakes of Tibet and California is _____
 - Tinical
 - Boric acid
 - Calcium carbonate
 - All
- Which electronic configuration corresponds to an element of group IIIA?
 - $1\text{S}^2, 2\text{S}^2, 2\text{P}^3$
 - $1\text{S}^2, 2\text{S}^2, 2\text{P}^6, 3\text{S}^2, 3\text{P}^1$
 - $1\text{S}^2, 2\text{S}^2, 2\text{P}^4$
 - $1\text{S}^2, 2\text{S}^2, 2\text{P}^6, 3\text{S}^2, 3\text{P}^3$
- In network of silica (SiO_2), one silicon atom is surrounded by _____ atoms of oxygen.
 - 4
 - 2
 - 1
 - 6
- Orthoboric acid is 2.6% soluble in water at 40°C and _____ at 107°C
 - 26%
 - 27%
 - 37%
 - < 2.6%
- The methyl silicone of high molecular mass is like
 - Plaster
 - Lubricant
 - Glass
 - Rubber
- H_3BO_3 is
 - Metaboric acid
 - Pyroboric acid
 - Orthoboric acid
 - Tetraboric acid
- Gibbsite contain water molecules
 - 6
 - 2
 - 5
 - 3
- The observed C – O bond distance in CO_2 is
 - 120pm
 - 115pm
 - 110pm
 - 105pm
- Boric acid is used as eye wash due to its
 - Weakly acidic property
 - Antiseptic nature
 - Antibiotic nature
 - Weakly basic properties
- In SiO_2 , the central atom silicon is hybridized
 - Sp^3
 - Sp^2
 - Sp
 - dsp^3
- Which one of the following is not a characteristic property of carbon?
 - Catenation
 - Multiple bond formation
 - Activity of d – orbital for bonding
 - Hardest allotrope
- Corundum is
 - Al_2O_3
 - Na_3AlF_6
 - quartz
 - Calcium

21. In transistors, silicon is used as
a. Super conductor b. Semi - conductor c. Bad conductor d. Insulator
22. The total number of electrons in one molecule of CO_2 is
a. 22 b. 44 c. 66 d. 88
23. Which substance is not formed by heating plumbus oxalate?
a. Pb_2O b. CO_2 c. CO d. Pb_3O_4
24. In which substance silicon is not present
a. Talc b. Asbestos c. Dolomite d. Zircon
25. Metallic character _____ from left to right is periodic table
a. Increases b. Decreases c. Remains constant d. None of them
26. Pentahydrate borax separates out when heated at
a. Above 62°C b. Below 62°C c. Below 52°C d. None of them
27. Boric acid can be titrated in the presence of glycerine against standard alkali using
a. Methyl orange b. Phenolphthalein c. Borax d. None of them
28. Which metal is used to remove air bubbles from molten metal
a. B b. Al c. Ga d. In
29. Cooled liquid silica is called
a. Vitreous silica b. Amethyst quartz c. Fused quartz d. None of them
30. The stable yellow modification of lead chromate is
a. Monoclinic b. Triclinic c. Cubic d. Trigonal
31. Boron is non – metal whereas Al is metal, it is due to
a. Small size b. High nuclear charge c. Both a & b d. No authorized justification yet
32. Boron in soil has been considered essential specially for
a. Soil porosity b. Proper growth of plants c. Alkalinity of soil d. All
33. One of the outstanding feature of boron is its ability to form _____
a. Molecular addition compounds b. Molecular crystals
c. Semi conductors d. All
34. Which of the following is not a use of silicon?
a. Lubricants b. Hydranlic brakes c. Antifreeze d. Water repellent
35. Litharge is chemically
a. PbO b. PbO_2 c. Pb_3O_4 d. $\text{Pb}(\text{CH}_3\text{COO})_2$
36. Which are correct oxidation states for lead?
a. +1, +2 b. +3, +5 c. +2, +4 d. +4 only
37. Which one of the following is ore of boron
a. Galena b. Cinnabar c. Emerald d. Colemanite
38. Which one of the following reactions of Al with different substances is used in photo flash?
a. $2\text{Al} + 3\text{H}_2 \longrightarrow 2\text{AlH}_3$ b. $4\text{Al} + 3\text{O}_2 \longrightarrow 2\text{Al}_2\text{O}_3$
c. $2\text{Al} + \text{N}_2 \longrightarrow 2\text{AlN}$ d. $2\text{Al} + \text{Cl}_2 \longrightarrow 2\text{AlCl}_3$
39. A solution of borax in water is
a. Acidic b. Alkaline c. Neutral d. Non of these
40. Orthoboric acid on strong heating to red heat gives
a. Borax b. Boron oxide c. Metaboric acid d. Tetraboric acid

By:
Prof. Syed Nadeem Ahmad