**TOT. MARKS: 30**

**TIME: 45 MIN**

**DATE: 24.4.20**

**p-BLOCK ELEMENTS -PRACTICE SHEET-01**

**SUBJECT: CHEMISTRY**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | The hybridization of boron atom in orthoboric acid is: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 2 | Which is not an allotrope of carbon? | | | | | | | |
|  | a) | Graphite | b) | Diamond | c) | Soot | d) | Carborundum |
| 3. | Alum are used as mordant in dyeing because | | | | | | | |
|  | a) | Dye is adsorbed on which is deposited on fibre in the hydrolysis process | | | | | | |
|  | b) | Dye is adsorbed on KOH formed due to hydrolysis | | | | | | |
|  | c) | Both of the above | | | | | | |
|  | d) | None of the above | | | | | | |
| 4. | Observe the following statements regarding purification of bauxite   1. During Hall’s process, silica is removed as Si (vapour). 2. Bauxite ore contaminated with is purified in Baeyer’s process. 3. During Serpeck’s process, AlN is formed.   The correct answer is | | | | | | | |
|  | a) | I, II and III are correct | | | b) | Only I and II are correct | | |
|  | c) | Only I and III are correct | | | d) | Only II and III are correct | | |
| 5. | Aluminium is not used | | | | | | | |
|  | a) | In silvery paints | | | b) | As oxidizer in metallurgy | | |
|  | c) | For making utensils | | | d) | As a reducing agent | | |
| 6. | Molecular weight of anhydrous aluminium chloride is: | | | | | | | |
|  | a) | 133.5 | b) | 267.0 | c) | 241.5 | d) | 483.0 |
| 7. | has the following characteristics: | | | | | | | |
|  | a) | It is called magnesium allylide | | | | | | |
|  | b) | It contains and ions | | | | | | |
|  | c) | It on hydrolysis gives propyne | | | | | | |
|  | d) | All of the above | | | | | | |
| 8. | Newton’s alloy contains : | | | | | | | |
|  | a) | Bi, Sn, Pb | b) | Bi, Fe, Cr | c) | Bi, Sn, Cd | d) | Pb, Sn, Cd |
| 9. | In III A group (thalium) show + 1 oxidation state while other members show + 3 oxidation state, why? | | | | | | | |
|  | a) | Presence of lone pair of electron in | | | b) | Large ionic radius of ion | | |
|  | c) | Inert pair effect | | | d) | None of the above | | |
| 10. | The protective film of oxide on the surface of Al metal may be strengthened by: | | | | | | | |
|  | a) | Galvanizing | b) | Cathodizing | c) | Sheradizing | d) | Anodizing |
| 11. | Which of the following is only acidic in nature? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 12. | Which poisonous gas is present in the exhaust of car? | | | | | | | |
|  | a) | Methane | b) | Carbon monoxide | c) | Acetylene | d) | Ethane |
| 13. | A metallic oxide which imparts purple colour to pottery is: | | | | | | | |
|  | a) | Lead oxide | b) | Copper oxide | c) | Sodium oxide | d) | Manganese dioxide |
| 14. | The cryolite is: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 15. | Quartz is made of silicon and oxygen joined in a network arrangement that is similar to : | | | | | | | |
|  | a) | Diamond | b) | Graphite | c) |  | d) | None of these |
| 16. | Solid is known as dry ice, because | | | | | | | |
|  | a) | It evaporates at 40 | | | b) | It melts at 0 | | |
|  | c) | Its boiling points is more than 199 | | | d) | It evaporates at - 78without melting | | |
| 17. | Aluminium chloride exists as , in solid state as well as in solution of non-polar solvents such as benzene. When dissolved in water, it gives | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 18. | Hot converts graphite into | | | | | | | |
|  | a) | Graphite oxide | | | b) | Benzene hexacarboxylic acid | | |
|  | c) | Both (a) and (b) | | | d) | None of the above | | |
| 19. | Which is correct oxidation state of lead? | | | | | | | |
|  | a) | +3, +4 | b) | +4 | c) | +1, +2 | d) | +2, +4 |
| 20. | Which of the following is a three dimensional silicate? | | | | | | | |
|  | a) | Mica | b) | Spodumene | c) | Zeolite | d) | None of these |
| 21. | Which of the following is a gas? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 22. | Plumbo-solvency means dissolution of lead in: | | | | | | | |
|  | a) | Hot water | b) | Acids | c) | Ordinary water | d) | Alkalies |
| 23. | On doping Ge metal with a little of ln, one gets: | | | | | | | |
|  | a) | -type semiconductor | | | | | | |
|  | b) | -type semiconductor | | | | | | |
|  | c) | Insulator | | | | | | |
|  | d) | Rectifier | | | | | | |
| 24. | Vapour density of which gas is near to air? | | | | | | | |
|  | a) | CO | b) |  | c) |  | d) |  |
| 25. | Muddy water can be purified through coagulation by using | | | | | | | |
|  | a) | Common salt | b) | Alums | c) | Sand | d) | Lime |
| 26. | The most abundant gas in ordinary air among the following is: | | | | | | | |
|  | a) | Argon | b) | Helium | c) | Carbon dioxide | d) | Carbon monoxide |
| 27. | Corundum is: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 28. | Tin dissolves in dilute H forming : | | | | | | | |
|  | a) | Metastannic acid | b) | Nitrous oxide | c) | Ammonium nitrate | d) | Stannic nitrate |
| 29. | The core of a non-luminous Bunsen burner flame is observed to be yellow in colour. This is because of: | | | | | | | |
|  | a) | Contamination from the metal of the burner | | | | | | |
|  | b) | Impurities in the fuel | | | | | | |
|  | c) | Incomplete combustion | | | | | | |
|  | d) | None of the above | | | | | | |
| 30. | The correct order of decreasing ionic nature of lead dihalides is : | | | | | | | |
|  | a) |  | | | | | | |
|  | b) | >>> | | | | | | |
|  | c) | <>< | | | | | | |
|  | d) | <<< | | | | | | |
| 31. | The correct Lewis acid order for boron halides is: | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) |  | | | | | | |
|  | d) |  | | | | | | |
| 32. | Incomplete combustion of petrol or diesel oil in automobile engines can be best detected by testing the fuel gases for the presence of : | | | | | | | |
|  | a) | CO + | b) | CO | c) |  | d) |  |
| 33. | Alum is not used: | | | | | | | |
|  | a) | As a mordant in dyeing | | | | | | |
|  | b) | As an insecticide | | | | | | |
|  | c) | In the purification of water | | | | | | |
|  | d) | In tanning of leather | | | | | | |
| 34. | , the products formed in the reaction are | | | | | | | |
|  | a) |  | b) |  | c) |  | d) | No reaction |
| 35. | Boric acid on heating at 150 ͦC gives: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 36. | Which one of the following orders presents the correct sequence of the increasing basic nature of the given oxides? | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) | <<< | | | | | | |
|  | d) | << | | | | | | |
| 37. | Which fuel has the highest calorific value? | | | | | | | |
|  | a) | Coal gas | b) | Water gas | c) | Producer gas | d) | Carbon dioxide gas |
| 38. | Anodising can be done by electrolyzing dilute with Al an anode, this result is | | | | | | | |
|  | a) | The formation of protective oxide layer | | | b) | The formation of | | |
|  | c) | The formation of and gas | | | d) | The formation of | | |
| 39. | Tin reacts with conc. to give: | | | | | | | |
|  | a) | α- stannic acid. | b) | Stannous sulphate | c) | β – stannic acid | d) | Stannic sulphate |
| 40. | The chemical formula of sindhur is | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 41. | Aluminium oxide is not reduced by chemical reactions since | | | | | | | |
|  | a) | Aluminium oxide is reactive | | | b) | Reducing agents contaminate | | |
|  | c) | Aluminium oxide is highly stable | | | d) | The process pollutes the environment | | |
| 42. | Aluminium reacts with caustic soda to form | | | | | | | |
|  | a) | Aluminium hydroxide | | | b) | Aluminium oxide | | |
|  | c) | Sodium meta-aluminate | | | d) | Sodium tetra aluminate | | |
| 43. | on reaction with gives gas: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 44. | When orthoboric acid is heated the residue left is: | | | | | | | |
|  | a) | Boron | b) | Metaboric acid | c) | Boric anhydride | d) | borax |
| 45. | Which is a correct statement about diborane structure? | | | | | | | |
|  | a) | All HBH bond angles are equal | | | b) | All bond lengths are equal | | |
|  | c) | It has two three-centre-2 electron bonds | | | d) | All hydrogen and boron atoms are in one plane | | |