GANGA TECHNICAL CAMPUS, SOLDHA

IMPORTANT QUESTIONS FOR DIPLOMA STUDENTS OF CHEMISTY-1 SUBJECT

Very short questions

1. Give the S.I. unit of pressure, volume, density, surface tension
2. Define Ion.
3. Define compound and mixture.
4. Define isotopes and isobars with examples.
5. Find the value of all four quantum number of 4p orbitals.
6. Write the electronic configuration of $_{17}$ Cl.
7. Define soft water.
8. The permanent hardness of water is due to_____.
9. Water that form lather with soap is called _____.
10. Give full form of BIS.
11. Acidity of $Mg(OH)_2$. Is _____.
12. The pH of basic solution lies between __ and___.
13. In Ni-Cd battery, the anode is made up of _____.
14. Define redox reactions.
15. What are the smallest unit of electricity.
16. Which type of battery is used in automobiles
17. Name most dangerous pollutant emitted in air during incomplete- combustion of fuel.
18. What are non –biodegradable pollutants?
19. Define pollutant.
20. Presence o f ____ are the main cause of ozone depletion.

Short answer questions

1. Calculate the percentage composition of water. [H=1, O=16]
2. Calculate the percentage composition of $Na_2S_2O_3$. [Na=23, S=32, O=16]
3. Balance the following equation
   $NH_4Cl + Ca(OH)_2 = CaCl_2 + NH_3 + H_2O$
   $Fe + H_2O = Fe_3O_4 + H_2$
4. Write the postulates of Dalton Atomic theory.
5. Write any four postulates of Bohr's model of atom.
6. Write the difference between isotopes and isobars.
7. Give the significance of quantum numbers.
8. Write all quantum numbers of an electron in 3s orbital.
9. State and explain the Pauli's exclusion principle.

10. Explain the Hund's rule of maximum multiplicity.
11. What is electropositive, electronegative and inert nature of elements with exemplify?
12. Write the difference between ionic and covalent bond.
13. Write the difference between σ and π- bond.
14. Give the action of soap with hard water.
15. Write the difference between soft water and hard water.
16. Write the difference between temporary and permanent hardness.
17. Give the disadvantages of using hard water for domestic purpose.
18. Write disadvantages of scale and sludge formation.
19. Write the difference between scale and sludge.
20. State the disadvantages of priming and foaming.
21. Disadvantages of lime-soda process.
22. What is the principle of reverse osmosis.
23. What is normality, molarity and molality?
24. Define a buffer solution and write down its applications.
25. What is pH? Give its mathematical expression.
26. Write the difference between atom and ion.
27. Write the difference between conductor and insulator.
28. Explain the Faraday's 1st and 2nd law.
29. Give the advantages and limitations of dry cell.
30. Explain the ozone layer depletion.
31. Write the short notes on global warming and green house effect.
32. What are the harmful effects of air pollution?
33. Calculate the values of mass no. , atomic no., no. of protons and no. of electrons in the following:
    $_{17}Cl^{35}$, $_{20}Ca^{40}$

Long questions

1. Explain the limitations of chemical equations.
2. Explain Rutherford's model of atom.
3. Explain ion-exchange method used for removal of hardness of water.
4. Explain the industrial applications of pH.
5. Explain the working and structure of Lead- acid battery.
6. Give the cause and control of water pollution.