CHEMISTRY 2017

Time: 2 ½ Hours Max. Marks: 68

SECTION "B" (SHORT-ANSWER QUESTIONS)(42)

NOTE: Answer 14 questions from this section.

2. Write names of any six branches of Chemistry.
3. Define: (i) Empirical Formula
   (ii) Avogadro's number (iii) Molar mass
4. Balance the following chemical equation:
   (i) $KClO_3 \xrightarrow{\Delta} KCl + O_2$ (ii) $N_2 + H_2 \rightarrow NH_3$
   (iii) $CH_4 + O_2 \rightarrow CO_2 + H_2O$
5. How many protons and neutrons are present in the following atoms:
   (i) ${}^{14}_{7}N$ (ii) ${}^{27}_{13}Al$ (iii) ${}^{23}_{11}Na$
6. Define: (i) Dobereiner's law of Triad
   (ii) Newland's law of Octave (iii) Modern Periodic law
7. Write three characteristic properties of Ionic compounds
8. Define: (i) Fusion (ii) Evaporation (iii) Sublimation
9. State Faraday's First and Second Law of electrolysis.
10. Write three differences between Oxidation & Reduction.
11. Describe the Lewis concept about acids and bases.
12. Define Exothermic and Endothermic reaction. Give one example of each with balanced chemical equations.
13. Compare 3 physical properties of diamond & graphite.
14. Define Electrolysis and write its two uses.
15. What is Ozone? Where does it exist in nature and how it is beneficial for earth?
16. Write the chemical formulae of:
    (i) Copper pyrite (ii) Haematite (iii) Bauxite
17. Define: (i) Homologous series
    (ii) Functional group (iii) Isomerism
18. What is soap? Write names of four kinds of soap.
19. What is suspension? Write names of four examples of suspension in daily life.
20. A hydrocarbon contains six carbon atoms. Write its molecular formula. If it is:
    (i) An alkane (ii) An alkene (iii) An alkyne
21. Calculate the molarity of a solution that contains 2