**SAMPLE PAPER (2013)**

**CLASS – X**

**SUBJECT : Chemistry**

**SECTION--A { ALL QUESTIONS CARRY 1 MARK EACH}**

**Q.1 What happens when a small piece of sodium is dropped into ethanol?**

**Q.2Write the IUPAC name of the next homologues of CH3OH & CH2CH3**

**Q.3 Name the product other than water formed on burning of ethanol in air.**

**Q.4 If an element with atomic number ‘A’ is an inert gas. In which group would you find an element with atomic**

**number ( A + 1 ) ?**

**Q.5 When acetic acid reacts with ethyl alcohol, we add conc. H2SO4. Its acts as…… and the process is called ……...**

**SECTION--B {ALL QUESTIONS CARRY 2 MARKS EACH}**

**Q.6 (i) Why does carbon form compound mainly by covalent bonding?**

**(ii)Give a chemical test to distinguish ethanol from ethanoic acid?**

**Q.7 ‘X’ is an element with atomic number 20.**

**(i) Is it a metal or non metal (ii) Is it more reactive than Mg or less.**

**(iii) What will the formula of its chloride? (iv) Will it be larger than K or smaller ?**

**Q.8 Which element has :**

**(a) Two shells, both of which are completely filled with electrons (b) the electronic configuration 2, 8, 4.**

**(c) A total of three shells, with five electrons in its valence shell**

**(d) Thrice as many electrons in its second shell in its first shell?**

**SECTION--C { ALL QUESTIONS CARRY 3 MARKS EACH}**

**Q.9 An organic compound ‘A’ is a constituent of antifreeze. The compound on heating with oxygen forms another**

**compound B which has a molecular formula C2H4O2. Identify the compound ‘A’ and ‘B’ writes the chemical**

**equation of the reaction that takes place to from the compound ‘B’.**

**Q.10 An element has two electrons in its M shell:**

**(a) Identify the element. (b) What type of ion will it form?**

**(c) What will be the formula of its chloride? (d) Predict the solubility of its chloride?**

**Q.11 (i) Write the common name of ethanol. Name two substances in which ethanol is an important constituent.**

**(ii)What happens (Give chemical equation) when ethanol is heated at 443K with excess of conc. H2SO4**

**(iii)Why is the conversion of ethanol to ethanoic acid an oxidation reaction?**

**Q.12 (i) Write the Mendeleev periodic law . (ii) Write its two merits & demerits.**

**SECTION--D { ALL QUESTIONS CARRY 5 or 6 MARKS EACH}**

**Q.13 Write the structure of (i) Propanol (ii) Ethyl ethanoate (iii) acetone (iv) formic acid (v)chloro propane**

**Q.14 (a) Complete the following equations:**

**(i) CH4 +O2 ---------🡪 (ii) CH3COOH +C2H5OH ---------🡪 (iii)CH3COOH +Na2CO3 ----------🡪**

**(b) Explain the cleansing action of soap.**

**Q.15 Given below are the electronic configurations of the atoms of some elements:**

|  |  |  |
| --- | --- | --- |
| Elements | Electronic configuration  K L M N O | **Letters X, Y, Z, E, G, L, Q, R, and T. These letters are not the symbols for the elements concerned. By reference to the table answer the following questions:** |
| X | 2 8 3 |
| Y | 2 8 18 5 |
| Z | 2 8 7 | **(a) Which is an alkali metal?** |
| E | 2 8 18 8 1 | **(b) Out of X, Z and G, which has the smallest atomic size?** |
| G | 2 8 2 | **(c) To which period does Y belong?** |
| L | 2 5 | **(d) Which element does not show much chemical reactivity?** |
| Q | 2 8 18 8 | **(f) Write the formula of the compounds formed when**  **(i) E reacts with Y and (ii) G reacts with Z** |

