**JAWAHAR NAVODAYA VIDYLAYA AMARKANTAK ANUPPUR M.P.**

**FA IV (FEBRUARY 2011-12)**

**SCIENCE AND TECHNOLOGY (THEORY)**

**M.M. 40 TIME 1 ½ HRS.**

**INSTRUCTION:**

1. **Question Paper is divided into 3 parts, Part A Chemistry (18 Marks) Part B Physics () Part C Biology**
2. **All the questions are compulsory and to be performed Section wise**

**SECTION A (CHEMISTRY)**

1. 

**Calculate Atomic number and Mass number of the given element.**

**Identify the element and write the symbol of the element (2 Marks)**

1. What are isotopes? Give two application of Isotopes. (2 Marks)
2. Compare the properties of electrons, protons and neutrons. (3 Marks)
3. 

**Na+ has completely filled K and L shells. Explain.**

**(2 Marks)**

1. A scientist performed a experiment to determine the structure and designed the following setup:

 

**Name the scientist. Explain the experiment and write the conclusion and draw the atomic model on the basis of his theory.**

**(5 Marks)**

1. Write the formulae of the following compound:
2. Sodium Phosphate ii. Magnesium Nitrate
3. Draw the atomic model of 