

## **Atomic Structure:**

Q1: What is the major difference between an element and compound?

Q2: What is crystallisation? Give an example.

Q3: State the differences between mixtures and compounds.

Q4 : In a chemical reaction 40 g of  $Fe_2CO_3$  is decomposed to give 20.5 g of Fe and rest of the product was  $CO_2$ . How much  $CO_2$  was formed in this reaction? Also write down the word equation, chemical equation and the states of reactants and products.

Q5: Balance the following chemical equations:

b) 
$$C_4H_{10} + O_2$$
  $CO_2 + H_2O$ 

c) Ba 
$$(NO_3)_2$$
 BaO +  $NO_2$  +  $O_2$ 

d) Na + 
$$H_2O$$
  $\longrightarrow$  NaOH +  $H_2$ 

e) 
$$CH_4 + O_2 \rightarrow CO_2 + H_2O$$

f) 
$$Na_2CO_3 + HCI$$
 NaCl +  $H_2O + CO_2$ 

Q6: Sort these into elements and compounds: