	XI-SCI : Chemistry Some basic concepts of chemistry,	DATE:
Quality Checkers Only way to fulfill your dreams		TIME: 1 hour 30 minutes
		MARKS: 25
		SEAT NO:

Note:-
1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer. (4)

1. The phlogiston theory was suggested for _____ .

   A) neutralization reaction   B) oxidation reaction

   C) reduction reaction   D) combustion reaction

2. Homogeneous mixture is formed by _____ .

   A) phenol and water   B) iron filings and sand

   C) silver chloride and water   D) ethanol and water

3. How many carbon atoms are present in 0.35 mol of $C_6H_{12}O_6$ ....

   A) 6.023×10^{23} carbon atoms   B) 1.26×10^{23} carbon atoms

   C) 1.26×10^{24} carbon atoms   D) 6.023×10^{24} carbon atoms

4. Atomicity of Ammonium phosphate $[(NH_4)_3PO_4]$ molecule is _____ .

   A) 5   B) 10

   C) 15   D) 20

Q.2 Answer the following. (3)

1. Classify the following as element and compound.
   Mercuric oxide, Helium gas, Water, Table salt, Iodine, Mercury, Oxygen, Nitrogen.

2. Calculate the molecular mass of C_2H_5OH (Methanol) in u.

3. (a) One dozen means how many items?
   (b) One gross means how many items?

Section B
Attempt any Four

Q.3   What is the relation between kilogram and gram? **(2)**

Q.4   Point out the difference between 12 g of carbon and 12 u of carbon. **(2)**

Q.5   Chemistry is a central science. Justify the statement. **(2)**

Q.6   What is density? How it is calculated? **(2)**

Q.7   Differentiate between mass and weight. **(2)**

Q.8   Calculate the mass of sulfur dioxide produced by burning 16 g of sulfur in excess of oxygen in contact process (Average at. mass: S = 32 u, O = 16 u) **(2)**

Section C
Attempt any Two

Q.9 What are derived units? Explain with two examples. **(3)**

Q.10 Explain mole concept. **(3)**

Q.11 Calculate the mass of potassium chlorate required to liberate $6.72dm^3$ of oxygen at STP. Molar mass of $KClO_3$ is 122.5 g mol^{-1} **(3)**

Section D
Attempt any One

Q.12 State and explain "law of multiple proportions" **(4)**

Q.13 A student used a carbon pencil to write his homework. The mass of this was found to be 5 mg. With the help of this calculate : **(4)**
(a) The number of moles of carbon in his home work writing
(b) The number of carbon atom in 12 mg of his homework writing.