Altitude Classes
ALTITUDE CLASSES
. . . reach the heights

IIT – JEE-Class-X-Chemistry
Topic: Basic concepts

Instructions:
1. Immediately fill your particulars by using a Blue/Black Pen Only.
2. There is only one correct answer for each question. Fill the bubble on the OMR to mark your answer.
3. Working should be done only in the space provided.
4. Don't fold or make any stray marks on the Answer Sheet.

Name: _____   Section: _____   Roll No:_____   School Id_____

1. Natural sample of cupric carbonate contains 51.35% of copper, 9.74%of 'o' and 38.91% of 'c'. synthetic sample of the compound will contain.
   (1) 51.35% Cu, 19.74% 'o' and 30.91% of c   (2) 51.35% Cu, 9.74% 'o' and 30.91% of c
   (3) 9.74% Cu, 38.91% o and 9.74% c   (4) 9.74% Cu, 9.74% o and 38.91% c

2. 100 ml of gaseous hydrogen combines with 50 ml of gaseous O_2 to give 100 ml of water vapours. This can be explained on the basis of?
   (1) law of definite proportions   (2) gay lussac's law
   (3) law of multiple proportions   (4) avogadro's law

3. Law of definite proportions is given by
   (1) antoine lavoiser   (2) joseph proust   (3) Avogadro   (4) john Dalton

4. law of constant composition does not hold good for
   (1) endothermic compounds   (2) non-stiochiometric compounds
   (3) stoichiometric compound   (4) exothermic compounds

5. What is incorrect about the law of conservation of mass?
   (1) a given compound always contains exactly same proportion of elements by weight
   (2) mass of reactants is equal to the mass of products
   (3) matter can neither be created nor destroyed
   (4) it was given by Antoine lavoiser

6. After a chemical reaction, the total mass of reactants and products
   (1) is always increased (2) is always decreased (3) is not changed (4) is always less or more

7. Chemical equation is balanced according to the law of
   (1) multiple proportion   (2) reciprocal proportion
   (3) conservation of mass   (4) Definite proportions

8. A sample of calcium carbonate $(CaCO_3)$ has the following percentage composition : $Ca = 40\%; C = 12\%; O = 48\%$. If the law of constant proportions is true, then the weight of calcium in 4 g of a sample of calcium carbonate obtained from another source will be
   (1) 0.016 g   (2) 0.16 g   (3) 1.6 g   (4) 16 g

9. n g of substance X reacts with m g of substance Y to form p g of substance R and q g of substance S. This reaction can be represented as, X+Y=R+S. The relation which can be established in the amounts of the reactants and the products will be
   (1) $n - m = p - q$ (2) $n + m = p + q$ (3) $n = m$ (4) $p = q$

10. A sample of pure carbon dioxide, irrespective of its source contains 27.27% carbon and 72.73% oxygen. The data support
    (1) law of constant composition   (2) law of conservation of mass
    (3) law of reciprocal proportions   (4) law of multiple proportions

OMR (Use HB Pencil Only)

1	① ② ③ ④	2	① ② ③ ④	3	① ② ③ ④	4	① ② ③ ④	5	① ② ③ ④
6	① ② ③ ④	7	① ② ③ ④	8	① ② ③ ④	9	① ② ③ ④	10	① ② ③ ④