

**DPP-1****SOLUTION**

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1. Isotopes are members of the same element's family but have variable numbers of neutrons despite having the same number of protons.

The most prevalent isotope of A has a mass number of 40 .

2. The molecular mass of vitamin C is 176.14 grams per mol.

Vitamin C has the chemical formula $C_6H_8O_6$ and a molecular mass of 176.14 grams per mol.

3. (B)

4. (B, C, D)

5. A-PT, B-Q, C-S, D-R

6. A-S, B-R, C-Q, D-P

7. 10, Ans. 1

Sol. Pure substances = copper, silver, gold, water, glucose, oxygen gas, hydrogen, ammonia, carbon dioxide; homogeneous mixture = sugar solution, air, brass, bronze; heterogeneous mixture = smoke, dust, soap solution.

$$x = 9, y = 4, z = 3$$

8. 6

$$\frac{9.6 \times 10^{-19}}{1.6 \times 10^{-19}} = 6$$

9. (A) ii, iii, iv; (B) vi ; (C) v ; (D) iii, ii

10.

Element	Symbol	Protons	Neutrons	Electrons	Mass number
Sulphur	^{32}S	16	16	16	32
Zinc	^{65}Zn	30	35	30	65
Calcium	^{40}Ca	20	20	20	40