

TENDER HEART HIGH SCHOOL, SEC-53B, CHDCLASS - VIIISUBJECT - CHEMISTRYCHAPTER - 5TEACHER - MOHINISHAThe Periodic Table.ANSWER - KEYExercise - 5(A)

Ans1. With rapid advance in science, the number of discovered element increased it is difficult to study and remember the behavior and properties of each and every element and also how they form the compounds hence attempts have been made to classify these elements in to groups of elements having similar characteristics.

Ans2. Basis of earliest attempts made for classification and grouping of elements is based on malleability, ductility and density and also to consider whether they are metals and non-metals.

Ans3. According to Dobereiner's law atomic mass of B

$$= \frac{\text{St. mass of A} + \text{St. mass of C}}{2} = \frac{7 + 39}{2} = \frac{46}{2} = 23.$$

Ans4. It is refer to the text.

Ans5. Yes, Dobereiner's triads also exist in the columns of Newlands Octaves. For example, the second column of Newlands classification has the elements lithium (Li), Sodium (Na) and Potassium (K), which constitute a Dobereiner's triad.

Ans6. (a) (i) All are metals (ii) Their oxides are alkaline in nature (iii) Each has valency 1.

(b) (i) All are metals (ii) Their oxides are alkaline in nature.

∴ B, P has valency 2.