Practice Challenge - Subjective

Subject: Chemistry

Topic : Periodic Table revision session_3

Class: X

Time: 00:20 hrs

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1. What is Newland's law of octaves? Explain with an example.

2. What is Debereiner's law of triads? Explain with the help of one example of a Dobereiner's triad.

3. Can the following groups of elements be classified as Dobereiner's triads?

   (a) Na, Si, Cl (b) Be, Mg, Ca

   Give the reason for your answer.

   (Atomic masses : Be = 9; Na = 23; Mg = 24 ; Si = 28 ; Cl = 35.5; Ca = 40)

4. How could the modern periodic table remove various anomalies of Mendleev's periodic table?

5. A metal X is in the first group of the periodic table. What will be the formula of its oxide?

6. Element X forms a chloride with the formula XCl_2, which is a solid with a high melting point. X would most likely be in the same group of the Periodic Table as
   (a) Na
   (b) Mg
   (c) Al
   (d) Si

7. Elements with configuration 2, 8, 2 and 2, 7 are placed in modern periodic table. Find out:
   1. the valency of the elements mentioned above.
   2. the period and group of the above elements.

8. (a) A, B and C are the elements of a Dobereiner's triad. If the atomic mass of A is 7 and that of C is 39, what should be the atomic mass of B?

(b) Why was Dobereiner's triad discarded?