

PRACTICE TEST PAPER: CLASS-X

Periodic Classification – X

1. How does the electronic configuration of an atom relate to its position in the Modern Periodic Table?
2. Did the Dobereiner's Triads also exist in the columns of Newland's Octaves? Compare and contrast.
3. What were the limitations of Newland's theory of the law of octaves?
4. What were the criteria accounted for by Mendeleev in creating his periodic table?
5. Name two elements you would expect to show a chemical reaction similar to Magnesium. What is the basis for your choice?
6. The atomic numbers of three elements A, B and C are 12, 18 and 20 respectively. State, giving your reasons, which two will show similar properties.
7. Write the formulae of chlorides of eka-Silicon and eka-Aluminium, as predicted by Mendeleev.
8. Three elements X, Y and Z all belong to 17th group but 2nd, 3rd and 4th period respectively. Number of valence electrons in Y is 7. Find the number of valence electrons in X and Z.
9. How does metallic character of elements vary on moving from:
 - a. Left to right in a period?
 - b. Top to bottom in a group?
10. Arrange the following elements in incremental order of their metallic character: Mg, Ca, K, Ge, Ga.
11. Name the scientist who proposed the modern Periods' law.
12. What is meant by atomic radius? Explain its trend across a period.
13. The atomic number of an element X is 20.
 - a. Determine the position of X in the periodic table.
 - b. Write the formula of the compound formed when X reacts with another element Y of atomic number 8.
 - c. What would be the nature (acidic/basic) of the compound formed? Justify your answer.
14. State the number of elements in the 2nd and 5th periods of the modern periodic table.
15. In the modern periodic table, which elements are metals amongst the first 10 elements?