

## Periodic Table : Quiz -30

- 1) Explain how Mendeleev discovered the periodic table.
- 2) Explain why atoms in a group have similar properties.
- 3) What change did Moseley make to Mendeleev's table?
- 4) What is the ionization energy?
- 5) Give three properties of metals.
- 6) Circle the correct answer.
  - a) Which is the most metallic element?
    - i) P
    - ii) In
    - iii) Sb
  - b) Which atom is the largest?
    - i) Ca
    - ii) Ba
    - iii) Br
  - c) Which atom has the highest ionization energy?
    - i) K
    - ii) Cs
    - iii) Fe
- 7) Classify the following as; solid, liquid, or gas (at 20.°C).
  - i) Rn
  - ii) Br
  - iii) As
- 8) Classify the following as; metal, non-metal, or metalloid.
  - i) Si
  - ii) Al
  - iii) Se
- 9) Classify the following as; alkali metal, alkaline earth metal, halogen, or noble gas.
  - i) I
  - ii) Sr
  - iii) Kr
  - iv) Rb

Answers: 1) He arranged the elements in order of increasing mass and found that elements with similar properties appeared periodically., 2) The atoms of a group have the same number of valence electrons. The valence electrons determine, to a large extent, the properties of the atom., 3) Moseley arranged the elements in order of increasing atomic number., 4) This is the energy required to remove a valence electron., 5) shiny, good conductor, malleable, ductile, 6)a) ii, b) ii, c) iii, 7) gas, liquid, solid, 8) metalloid, metal, non-metal, 9) halogen, alkaline earth, noble gas, alkali metal.