

Model Question paper
Periodic Classification - I 2

11th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 01:30:00 Hrs

Total Marks : 50

10 x 1 = 10

Part - A

- 1) Which one among the following species has the largest atomic radius:
(a) Na (b) Mg (c) AlSi (d) Si
- 2) Which of the following has highest ionization potential?
(a) Sodium (b) Magnesium (c) Carbon (d) Fluorine
- 3) With respect to chlorine, hydrogen will be
(a) Electropositive (b) Electronegative (c) Netural (d) None of these
- 4) Halogens belong on the:
(a) s-block (b) p-block (c) d-block (d) f-block (e) Zero group of the periodic table
- 5) Which arrangement of the following set of atoms is in order of increasing atomic radius :Na,Rb,K and Mg
(a) Na,Mg,K,Rb (b) Na,K,Mg,Rb (c) Mg,Na,K,Rb (d) Mg,Na,Rb,K
- 6) Characteristic of transition elements is incomplete in:
(a) d-orbitals (b) f-orbitals (c) p-orbitals (d) s-orbitals
- 7) Which of the following will have lowest first ionization enthalpy?
(a) Na (b) Al (c) Mg (d) Si
- 8) Which of the following atoms is likely to give off more energy on gaining an electron?
(a) Na (b) Mg (c) Al (d) Cl
- 9) Transition metals have the electronic configuration
(a) $ns^2 nd^{1-10}$ (b) $ns^2 np(n-1)d^{1-10}$ (c) $ns^2(n-1)d^{1-10}$ (d) $ns^2 np^6(n-1)d^{1-10}$
- 10) In the first transition series the incoming electron enters the
(a) 4d-orbital (b) 3d-orbital (c) 5d-orbital (d) 6d-orbital

Part - B

5 x 2 = 10

- 11) State Modern Periodic Law
- 12) Which of the following pairs of elements would you expect to have lower first ionization enthalpy?
(a) Cl or F
- 13) Which of the following pairs of elements would you expect to have lower first ionization enthalpy?
(a) Cl or S
- 14) Which of the following pairs of elements would you expect to have lower first ionization enthalpy?
(a) Kr or Xe.
- 15) Why Noble gases have zero electron gain enthalpy?

Part - C

5 x 3 = 15

- 16) Name the different blocks of elements in periodic table. Give the general electronic configuration of each block.
- 17) Why nitrogen has higher I.E value than oxygen?
- 18) Out of fluorine and chlorine, which has greater electron gain enthalpy?
- 19) Why are d-block elements called transition elements?
- 20) Among the elements Li, K, Ca, S and Kr which one has the lowest first ionization enthalpy? Which has the highest first ionization enthalpy?

Part - D

3 x 5 = 15

- 21) What do you mean by the term electron gain enthalpy? How does electron gain enthalpy change along a period and in a group?
- 22) Explain the size of group $Cl > Na^+$
- 23) What is meant by electronegativity? On what factors does it depend?
