Model Question paper

Periodic Classification - I 3

11th Standard

Chemistry

Reg.No. : | | | | | | |

I. Answer all the questions.

II. Use blue pen only.

Time : 01:30:00 Hrs

Total Marks : 50

Part - A

10 x 1 = 10

1) Representative elements are those which belongs to

(a) s and d-blocks (b) s and p-blocks (c) p and d-blocks (d) d and f-blocks

2) The elements having highest ionisation energies within their periods are called:

(a) Halogens (b) Noble gases (c) Alkali metals (d) Transition elements

3) The law of triad is applicable to:

(a) Chlorine,bromine and iodine (b) Hydrogen, oxygen and nitogen (c) Sodium,neon and calcium (d) All of the above

4) Which of the following property decreases down a group:

(a) Ionization enthalpy (b) Atomic radii (c) Valency (d) All the above

5) Which of the following hydroxide is most basic?

(a) $Mg(OH)_2$ (b) $Ba(OH)_2$ (c) $Ca(OH)_2$ (d) $Be(OH)_2$

6) Which of the following is the highest ionization potential?

(a) Calcium (b) Lithium (c) Magnesium (d) Sodium

7) With respect to chlorine,hydrogen will be

(a) Electropositive (b) Electronegative (c) Netural (d) None of these

8) Halogens belong on the:

(a) s-block (b) p-block (c) d-block (d) f-block (e) Zero group of the periodic table

9) The first attempt to classify the elements was made by

(a) Mendeleev (b) Newland (c) Lother Meyer (d) Dobereiner

10) Transition metals have the electronic configuration

(a) $ns^2\ nd^{1-10}$ (b) $ns^2np(n-1)d^{1-10}$ (c) $ns^2(n-1)d^{1-10}$ (d) $ns^2\ np^6(n-1)d^{1-10}$

Part - B

5 x 2 = 10

11) Write electronic configurations for the elements of atomic numbers 6 and 14 and from this find out of which group in the periodic table each element belongs.

12) Which of the following electronic configuration has the lowest ionization enthaply?

$1s^2,2s^2,2p^2,3s^2$

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)K or Ar

15) Why Noble gases have zero electron gain enthalpy?

Part - C

5 x 3 = 15

16) Why do elements in the same group have generally similar properties?

17) Arrange the order of increasing atomic volumes in

(a)C, N and O

18) To which blocks does the element with configuration $3d^{10}4s^3$ belongs

19) Out of fluorine and chlorine,which has greater electron gain enthalpy?

20) What property did Mendeleev use to classify elements in his periodic table?

Part - D

3 x 5 = 15

21) Which of the following pairs have smaller ionization enthalpy?

(a)Ca or K

22) What do you mean by the term electron gain enthalpy?How does electron gain enthalpy change along a period and in a group?

23) What are the essential features of the periodic table of Mendeleev?Discuss how his table has been modified subsequently.

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