KAMALAMMAL MATRIC. HR. SEC. SCHOOL

Half Portion

Max. Marks : 70 **XIth Chemistry** Time : 2.30 Hrs.

I. Choose the correct answer: **10 x 1 = 10**

1. Splitting of spectral lines in an electric field is called _____.

a) zeeman effect b) shielding effect

c) compton effect d) stark effecr

2. The maximum number of electrons in a sub shell is given by the expression _____.

a) $2n^2$ b) $2l + 1$ c) $4l + 2$ d) none of these

3. In a given shell the order of screening effect _____.

a) s > p > d > f b) s > p > f > d c) f > d > p > s d) f > p > s > d

4. Which of the following elements will have the highest electro negativity _____.

a) chlorine b) nitrogen c) cesium d) fluorine

5. Hydrogen burns in air with a flame _____.

a) light – blusisn b) yellow c) green d) none of these

6. Hydrogen scts as a reducing agent and thus resembles _____.

a) halogens b) chalogen c) inertgases d) alkalimetals

7. Formula of gypsum is _____.

a) $CaSO_4\ 2H_2O$ b) $CaSO_4\ ½H_2O$ c) $3CaSO_4$ d) $2CaSO_4\ 2H_2O$

8. The suspension of slaked lime in water is known as _____.

a) lime water b) quich lime c) milk of lime d) none of these

9. Heat of combustion is always _____.

a) positive b) negative c) zero d) none of these

10. In an adiabatic expansion of an ideal gas _____.

a) $W = - \Delta U$ b) $W = \Delta U + \Delta H$ c) $\Delta U = 0$ d) $W = 0$

II. Answer the following questions: **10 x 2 = 20**

11. What is definition of entropy with unit?

12. What is lattice energy?

13. How is plaster of pairs prepared?

14. Explain what is meant by efforencence?

15. What is water gas shift reaction?

16. What are isotopes? Give example.

17.Define electronegativity.

18.Give the general electronic configuration of lanthandies and actinides.

19.State pauling exelusion principle.

20.Define orbital.

III. Answer the following questions: **10 x 3 = 30**

21.Describe Aufbau principle.

22.Suppose that the uncertainty in determining the position of an electron in an orbit is 0.6 A°. What is the uncertainty in its momentum?

23.Why halogens acts as oxidizing agents.

24.Explain diagonal relationship.

25.Mention the uses of deuterium.

26.How do you convert parahydrogen into ortho hydrogen.

27.Why alkaline earth metals are harder than alkali metals?

28.Discuss the similarities between beryllium and aluminium.

29.What are spontaneous reactions? Conditions?

30.State third law of thermodynamics.

IV. Answer the following questions[Any 2]: **2 x 5 = 10**

31.State the various statements of second law of thermodynamics.

32.Describe the biological importance of calcium and magnesium.

33.Pauling scale method to determine Ionic radil.

*** All the Best ***

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