D.A.V Public School, Chitra

Home assignment of summer vacation

Class-XII          Sub- chemistry

1) Why does molality of a solution remain unchanged with change in temperature where molarity changes.

2)  State the characteristics of an Ideal solution?

3)  Distinguish between molarity and Normality.

4) What is osmatic pressure and how it is related with the molecular mass of non-metallic solution?

5) Explain what role the molecular interaction plays in the solution of alcohol and aceton.

6) State and explain raoults law of two miscible liquids.

7) Determine the osmotic pressure of a solution prepared by dissolving 25 mg of $K_2SO_4$ in 2 litre of water at $25^0$c amusing that it is completely dissociated?

8) What do you mean by Molar conductivity and equivalent conductivity?

9)  Explain the variation of conductivity and molar conductivity with concentration?

10) Explain the principle and working of lead storage cell.

11) Calculate the $E^0$ cell of the following electrode reaction.

$Zn^{2+}$ (aq) + 2e -----> Zn. $E^0$ = -0.76v

$Cd^{2+}$ + 2e -----> Cd.  $E^0$  = -0.40v

12) Predict the product of electrolysis obtained at the electrode in each case when the electrode used are of platinum.

(i) An aqueous solution of AgNO3

(ii) An aqueous solution of  $H_2SO_4$

13) Explain how making of iron is envisaged as setting up of an electrochemical cell.

14) Write Nernst equation and calculate e.m.f of the following cells at $25^0$ c given $E^0 Fe^{2+}/Fe$ = -0.44v

Fe(s) |$Fe^{2+}$(0.001 M)||$1^+$ (1 M)|$H_2$(g)|P+(s)(1 bar)

15) State and Explain Faraday's law of electrolysis?

16) What are the functions of salt bridge?

17) Differentiate between Electrode potential and EMF of the cell.

18) State and Explain Kohlrausch's law of Independent migration?

19) Find electrode potential using Nernst equation for the following cell reaction

$Cu^{++}$+ 2c ------>Cu
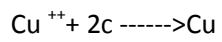
20) Explain the working of an electrochemical cell (galvanic cell)

ALL NCERT exercise of chapter solution