Brain International School

Vikas Puri, New Delhi

REVISION SHEET

SUBJECT: CHEMISTRY **CLASS-XII** **TERM 1**

Chapter- Solutions

1. Give an example of 'liquid in solid' type solution.
2What is meant by semimolar and decimolar solutions?
3. Under what condition is van't Hoff factor less than one?
4. What is the maximum value of van't Hoff factor (i) for $Na_2SO_4 . 10H_2O$?
5. When 1 mole of NaCl is added to 1 liter water, the boiling point increases? When 1 mole of CH_3OH is added to 1 liter water, the boiling point decreases? Suggest reasons.
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7. Account for the following:–
   (a) $CaCl_2$ is used to clear snow from roads in hill stations.
   (b) Ethylene glycol is used as antifreeze solution in radiators of vehicles in cold countries.
   (c) The freezing point depression of 0.01 m NaCl is nearly twice that of 0.01 m glucose solution.

Chapter- Electrochemistry

8. Give the factors which affect corrosion.
9. Differentiate E.M.F. and potential difference.
10. Give the relation between conductivity and molar conductivity of a solution.
11. Give differences between electrochemical cell and Electrolytic cell.
12. Calculate the e.m.f. of the cell at 25^0C

$Zn \mid Zn^{+2}(0.01M) \parallel Fe+2\ (0.005M) \mid Fe$

13. Solution of two electrolytes 'A' and 'B' are diluted. the molar conductivity of 'B' increase 1.5 times while that of A increase 25 times. Which of the two is strong electrolyte? Justify.
14. When H_2SO_4 solution is electrolyzed, will the pH of solution be affected? Justify

Chapter-Haloalkanes and Haloarenes

15. Write the distinguish test between following pair of compounds:

(a)Benzylchloride and chlorobenzene (b) Chloroethane and chloroethene

16. Write the short notes on following name reactions:

(a) Wurtz reaction (b)Wurtz fittig reaction (c) SN^1reaction

17. Give reason for the following:

(a)Haloarenes do not show nucleophilic substitution.

(b)Benzyl chloride show faster SN^1 reaction.

(c)R-X &Ar-X do not dissolve in water.

Chapter-Alcohol, Phenol & Ether

18. Give IUPAC name of following compounds:

(a)Ethylene glycol (b) Salicyl aldehyde (c) Salicylic acid

19. Write mechanism for inter molecular dehydration of alcohols.

20. Why tertiary alcohols show fast Lucas test?

21.3^0 alcohols do not convert into ethers on dehydration.

22.Which compound will form on reaction of HI with anisole.

Chapter- Aldehyde,Ketones & carboxylic acid

23. Explain the following Terms:

(a) Acetal (b) Cynohydrin

24. Write the distinguish test between the following Compounds:

(a)Acetophenone &Benzophenone (b)Propanal and propanone

25. 7. Complete the following reactions by identifying A,B and C.

(a) $A + H_2 \xrightarrow{pd/BaSO4} (CH_3)_2CHCHO$

(b)$(CH_3)_3C\text{-}CO\text{-}CH_3 + NaOI \rightarrow B + C$

Chapter-Amines

26. Explain the following name reactions:

(a)Carbylamine reaction (b) Coupling reaction

27. Give reason for the following:

(b)Ethan amine is more basic than ethanamide

(c)Aniline does not dissolve in water

(d)Aniline does not show Friedel-Craft reaction.

Chapter-Biomolecule

29.Name one monosaccharide .

30. What structural feature is required for a carbohydrate to behave as reducing sugar?

31.Give the significance of (+)-sign in the name D-(+)-glucose

32.Give the significance of prefix 'D' in the name D-(+)-glucose.

[**Hint :** 'D' Signifies that –OH group on C-5 is on the right hand side]

33.Give the structure of simplest optically active amino acid

34.How would you explain the amphoteric behavior of amino acids.

35.Give reason : Amylase present in the saliva becomes inactive in the stomach.

36.What type of linkage holds together the monomers of DNA and RNA