



S. S. DIVINE SCHOOL

Pre-Primary, Primary, Secondary & Higher Secondary
Opp. Science City, Sola, M : 70693 11011
Email : ssdivineschool2015@gmail.com



Std. 12 [E.M.]
Sub : Chemistry

Assignment

Section : A

* **Answer the following questions (Each carries 2 Marks)**

1. Write a note on : Metal excess defect due to presence of extra cations on the industrial sites.
2. Write a note on ferromagnetism
3. Example : 1.3, 1.4, 1.5
Exercise : 1.11, 1.13, 1.15
4. Explain reverse osmosis and purification of water
5. Explain Molarity and molality in short
6. Example : 2.3, 2.6, 2.7
Exercise : 2.17, 2.27
7. Example : 3.2, 3.3, 3.9
Exercise : 3.8
8. Give a note on conductivity cell constant (G)
9. Give a note on Dry Cell
10. What is meant by the term "Chromatography"
11. Explain zone refining process
12. Explain leaching of : Gold and Silver (Cyanide Process)
13. Explain extraction of copper from copper (I) Oxide.
14. Write down the reaction taking place in different zone in the blast furnace during the extraction of iron.
15. Why copper matte is put in silica lined converter.
16. Explain sandmayer reaction.
17. Explain Allylic halides and benzylic halides with example.
18. Explain wurtz and wurtz fitting reaction.
19. Give structure of DDT and its disadvantages (in short)
20. Give preparation of phenol from Aniline.
21. Write a note on Reimers-Tiemann Reaction.
22. Write the equation of the reaction of Hydrogen iodide with
 - (i) methoxybenzene
 - (ii) benzyl ethyl ether.
23. Describe the cannizzaro reaction.
24. Conversions of following
 - (i) Ethanol to 3-Hydroxybutanal
 - (ii) phthalic acid to Phthalimide.

Section : B

* **Answer the following Questions : (Each carries 3 Marks)**

1. Calculate packing efficiency in HCP and CCP structure.
2. Explain Doping
3. Explain Raoult's Law for volatile solute and volatile solvent.

4. Write difference between : Positive deviation and negative deviation
5. What is zero order reaction ? Determine the integrated rate equation for zero order reaction $R \rightarrow P$
6. What is Activation Energy (E_a) ? Explain graph of reaction of activation energy and write about its probability.
7. Example : 4.8, 4.9
Exercise : 4.14, 4.16, 4.24, 4.28
8. Explain : Hall-Heroult proceeds
9. Write Van Arkel method.
10. Explain froth floatation process
11. Explain SN^1 reaction.
12. Why aryl halides undergo electrophilic substitution reaction of O- and P- position ? Why it is less reactive than benzene.
13. How the following conversions can be carried out ?
(a) Benzene to Biphenyl
(b) Ethanol to But-1-yne.
14. Write a note on Kolbe's reaction
15. Write a note on Williamson's ether synthesis.
16. Give two reaction that show the acidic nature of phenol. Compare acidity of phenol with that of ethanol
17. How the following conversions can be carried out ?
(a) Benzaldehyde to Benzophenone
(b) Benzene to p-nitrobenzaldehyde
(c) Benzene to m-nitrobenzoic acid
18. Explain Aldol condensation
19. Explain Reosnmund Reaction and Etard reaction.

Section : C

*** Answer the following Question (Each carries 4 Marks)**

1. Example : 2.12, 2.13
Exercise : 2.38, 2.33, 2.20
2. Write Henry's Law and its application.
3. What is osmotic pressure ? Explain and derive its equation.
4. Example : 3.4, 3.5
Exercise : 3.16, 3.15, 3.11
5. Write a note on lead storage cell
6. Write note on standard Hydrogen electrode
7. Exercise : 4.17, 4.15, 4.25, 4.27 4.29
Example: 4.6
8. Explain collision theory of Chemical reaction.
9. What is first order reaction ? Determine the integrated rate equation for first order reaction $R \rightarrow P$ also Direly half life of $1/2$ of first order reaction.
10. Write note on effect of substitutes on acidic strength of carboxylic acid compound.
11. IUPAC name from Text book.
12. Write method of preparation of carboxylic acid (Any Four)