Plus Two Sample Question Paper
CHEMISTRY

Time :2 hour **Mark: 60**

Part I

1.The denticity of EDTA------
2. Number of moles of solute per kilogram
a. Molarity b. Molality c. Molefraction d. Normality
3.Order of reaction having the rate constant 7x 10^{-3} S^{-1}
4.Tollens reagent is ----
5.Common oxidation state of lanthanoids -------- (1x5=5)

Part II

6.Write IUPAC name of the following coordination compounds.
a)[Co(NH3)4Cl2] Br b)K4[Fe(CN)6]
7.Transition metals show exhibit variable oxidation state in their compounds. Give reasons.
8.Describe primary and secondary structure of protein
9.Derive half-life period of zero order reaction
10.What is fuel cell. Give two advantages.
11.Identify the product of following reaction
i. CH3CH2OH+PCl3---->.....
ii.CH3CH2Br+KCN------>.....
12.CH3CH2CHBrCH3----alc. KOH-----> A+B. Identify the A&B
13.What is difference between order and molecularity.
14. Explain Reimer Tiemann reaction
15.Expain carbylamine reaction. what is its importance.
(2x10=20)

Part III

16.i.Draw the crystal field splitting in octahedral complex.(2)
ii. Define spectrochemical series (1)
17.How will you prepare potassium dichromate from chromite ore.
18.What you mean by colligative property. Mentione their name.
19.Write Nernst equation for Daniel cell. (1)
ii. State Kohlrausch's law. (2)
20.How will you distinguish primary, secondary and tertiary alcohols by using Lucas reagent.
21i.Why phenol is more acidic than alcohol. (2)
ii. Explain williamsons ether synthesis.(1)
22 Explain the difference between Aldol condensation and cannizaro reaction.
23. Distinguish between primary,secondary & tertiary amine.
24 Write any three difference between SN1 and SN2 reaction
25. Cane sugar ,starch and glucose are carbohydrates
i represent the structure of glucose (1)
ii Write a method to prepare glucose from starch (1)
iii. Suggest any two use of carbohydrate(1)

26.i. C6H6----->C6H5CHO. Identify the reagent and reaction.(2)

ii.C6H5COCl------>?. Identify the product in presence of Palladium and Barium sulphate.(1)

(3x11=33)

Part IV

27 i.. What is ideal solution and draw the graph between vapour pressure and mol fraction.(2)

ii. Modify the above plot for non ideal solution showing positive deviation.(2)

28.i. Distinguish between primary and secondary cell.(2)

ii. Right two methods for prevention of corrosion.(2)

30.i. Explain HVZ reaction.(1)

ii. Why benzoic acid is more acidic than acetic acid.(1)

iii. Explain oxidation of aldehyde and ketone.(2)

31.i.Give Arrhenius equation.(1)

ii.The rate of a chemical reaction double for an increase of 10k in Absolute Temperature from 300k .calculate the activation energy. R=8.314,log2=.3010(2)

32. Transition elements show different oxidation state in their compounds give reason.

(4x5=20)