Sample Paper – 2014
Class – XII
Subject – Chemistry
EQUILIBRIUM CLASSES

TIME :3 Hr M.M 70

- GENERAL INSTRUCTIONS
- QUES 1 to 8 are of 1 marks each
- Ques 9 to 18 are of 2 marks each
- Ques 19 to 27 are of 3 marks each
- Ques 28 to 30 are of 5 marks each

Q-1 Out of c and co which is better reducing agent for ZnO?
Q-2 what is the role of NaCN in froth floation method?
Q-3 what is F centre?
Q-4 what Azeotropic mixture?
Q-5 why AgBr shows both frenkel and schottky defect?
Q-6 Name the catalyst used in contact process.
Q-7 What is the effect of temperature on adsorption?
Q-8 what are necessary conditions for more production of ammonia by Haber's process.
Q-9 Differentiate b/w ----(1)1^0 2^0,3^0,alcohol by lucas test
(2) SN^1& SN^2 Reaction with mechanism
Q-10 What is the difference b/w schottky and frenkel defect?
Q-11 What is the chemical reaction of------(a) lead storage battery (b) Ni/Cd battery
Q-12 [a]why PH_3 is less basic than NH_3 [b] write the manufacture of Cl2 by Deacon'sprocess
Q-13 Write the mechanism of formation of ethane from ethanol.
Q-14 What is Henry law?write its two application.
Q-15 What is ELLINGHAM DIAGRAM explain with diagram.
Q-16 Give Reason –1.Why carboxylic acids are more acidic than phenols
2.Why o-nitrophenol is more volatile than p-nitrophenol?
Q-17 Draw the structure of ----1.H_3PO_2 2. XeO_2F_2
Q-18 [a] What is instantaneous rate of reaction?
[b] The conversion of molecule X to Y follows second order kinetics. If concentration of X increased to three times how will it affect the rate of formation.
Q-19 In Rosa thermal power station shahjahanpur coal is bernt to produce steam for electricity. The smoke produce gets precipitate in the chimneys having precipitator
Answer the following 1.why is the smoke passed through precipitator ?
2. How does coal ash affect atmosphere?

3. Which value is promoted through the use of electrostatic precipitator

Q-20 Define the following terms

[a] Zwitter ion [b] cell potential [c] chromatography

Q- 21 calculate the cell potential of [1] Zn/Zn++//Cu++/Cu, [2]Cr/Cr+++(0.1M)//Fe++(0.01M)/Fe

Given that E^0Cr+++/Cr=-0.75v, E^o Fe++/Fe=-0.45v

E^0Zn/zn++=0.76v, E^o Cu++/Cu=-0.34v

Q-22 complete the following

1. NH_3+Cl_2(EXCESS)---------→
2. SiO_2+HF ---------→
3. H_3PO_3 ---------→

Q-23 [a]With the help of chemical reaction write the preparation of urotropine.

[b] Write the I.U.P.A.C name of CH_2=CH-CH=CH-Br

Q-24 Draw the structure of (a) marshall acid (b) tricyclometaphosphoric acid (c) XeO_3

Q-25 Carry out following conversions

1. Prop-1-ene to propan-2-ol
2. Methanamine to ethanol
3. Chlorobenzene to D.D.T

Q-26 Answer the following questions

1. Why soda water bottle fizzes out on opening the cap
2. How sea water is purified
3. What is raoults law

Q-27 1.EXPLAIN WITH CHEMICAL REACTION

A. Rosenmund reduction
B. Reimer Tiemann reaction
C. Swarts reaction's reaction

2 .Distinguish b/w following pairs

A. Phenol & benzoic acid

B.propan-2-ol propan -1-ol

Q-28 [A] Determine the amount of $CaCl_2$(i=2.47) dissolved in 2.5 litre of water such that its osmotic pressure is 0.75atm at 27^{O}C

[B] Write chemical reaction occurring in [1] Bessemer converter

[2]Blast furnace

Q-29 An aromatic organic compound 'A' on treatment with aqueous solution of ammonia and heating forms compound 'B' which on diazotization to give compound C . compound C on treatment with H_3PO to give compound D. write the name of compound A,B,C,D with their chemical reaction.

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Q-30 Arrange the following according to given instructions
[A] HCLO4,HCLO3,HCLO2,HCLO (INCREASING ACIDIC STRENGTH)
[B]F_2, Cl_2, Br_2, I_2 (INCREASING BOND DISSOCIATION ENERGY)
[C]NH_3, PH_3, AsH_3, SbH_3, BiH_3 INCREASING BASIC CHARACTER)
[d]HF, HCl , HBr HI (INCREASING ACIDC ARACTER)
[E]H2O , H2S , H2Se ,H2Te (THERMAL STABILITY)
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**********BEST OF LUCK**********

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