

Model papers

B.Sc SEMESTER II, GENERIC ELECTIVE-2 (Chemistry)

GROUP-A

- 1- Explain first law of thermodynamics.
- 2-Discuss Le Chateliers principle.
- 3-Discuss Pinacol-Pinacolone reaction.
- 4- Discuss oppeneaur oxidation.
- 5-State and explain Kirchhoff's equation.
- 6- Write note on Buffer solution.

GROUP-B

- 6-Discuss degree of ionization, ionization constant and ionic product of water.
- 7- Write notes on: (a) Bond dissociation energy (b) Standard enthalpies of formations. (c) Enthalpy
- 8- (a) what is solubility? Discuss solubility product of sparingly soluble salt.
(b) State law of chemical equilibrium and discuss how K_c is related to K_p .
- 9- (a) Discuss the mechanism and stereochemistry of SN^1 , SN^2 and SN^i
(b)How alcohols can be converted to alkenes?
- 10- Discuss the following reactions with mechanism i) Aldol condensation ii) Cannizaros reaction iii) Benzoin Condensation iv) Wittig reaction.
- 11-a) How acid chloride can be used to prepare aldehydes and ketones?
(b) Discuss Reimer- Tiemann reactions and Gattermann-coch reaction.
- 12-Write the method of preparation of phenol. Discuss nitration and halogenations of phenol
- 13-Discuss salt hydrolysis and hydrolysis constant.