

2015 (A) Roll No: _____
INTERMEDIATE PART-II (12th CLASS)

CHEMISTRY PAPER-II (NEW SCHEME)

TIME ALLOWED: 3.10 Hours

GROUP-I

SUBJECTIVE

MAXIMUM MARKS: 83

**NOTE: - Write same question number and its part number on answer book,
as given in the question paper.**

SECTION-I

2. Attempt any Eight parts.

8 × 2 = 16

- (i) Why the oxidation state of Noble gases is usually zero?
- (ii) Give reason that Hydration Energy of Al^{3+} ions is more than Mg^{2+} ions.
- (iii) P_2O_5 is a powerful dehydrating agent. Prove giving examples.
- (iv) Why is SO_3 dissolved in H_2SO_4 and not in water?
- (v) What are Homocyclic compounds? Give two examples.
- (vi) Write structural formulas of the two Isomers of C_4H_{10} .
- (vii) What are Electrophiles and Nucleophiles?
- (viii) Why 'R – X' are reactive compounds?
- (ix) Write down structural formulas of (a) Oxalic acid (b) Benzoic acid
- (x) What is Glacial Acetic Acid?
- (xi) Briefly describe the bleaching process in paper industry.
- (xii) What are Micro and Macro nutrients for plant growth?

3. Attempt any Eight parts.

8 × 2 = 16

- (i) Why members of second group are called Alkaline-Earth metals?
- (ii) Write formulas of Borax and Chile Saltpetre.
- (iii) Give uses of Iodine.
- (iv) Write formulas of two Oxides of Bromine.
- (v) Convert CH_4 to CH_2O .
- (vi) How Cis-Alkenes and Trans-Alkenes are obtained from Alkyne?
- (vii) Give oxidation of primary and secondary alcohols.
- (viii) How Ether is prepared by Williamsons synthesis?
- (ix) Write a note on Cholesterol.
- (x) How Nylon 6, 6 can be obtained?
- (xi) How detergents cause water pollution?
- (xii) Write harmful effects of Chlorination of Water.

4. Attempt any Six parts.

6 × 2 = 12

- (i) Write down four uses of Borax.
- (ii) Write down the structure of CO and CO_2 .
- (iii) What do you mean by Ligand and Coordination sphere?
- (iv) Why do the transition elements have variable valency?
- (v) Write down the formula of Acetophenone and Benzyl Alcohol.
- (vi) What is Wurtz–Fittig's reaction?

P.T.O

(2)

- (vii) What is Cannizzaro's reaction? Give an example.
- (viii) What is Formalin?
- (ix) What is Tollen's test?

SECTION-II

NOTE: - Attempt any three questions.

8 × 3 = 24

- 5.(a) Describe commercial method for preparation of Sodium Hydroxide by the Diaphragm Cell. 4
- (b) Convert Acetylene into (i) Glyoxal (ii) Chloroprene 4

- 6.(a) Describe four points of peculiar behaviour of Boron. 4
- (b) Write the Atomic Orbital Treatment about the structure of Benzene. 4

- 7.(a) Discuss industrial preparation of Nitric Acid by Birkeland – Eyde's Process. 4
- (b) Describe S_N1 mechanism of reactions in organic compounds. 4

- 8.(a) Discuss Relative Reactivities of the Halogens as Oxidizing Agent. 4
- (b) (i) Give two methods of Preparation of Phenol. 4
- (ii) How Methanol is prepared in industry? 4

- 9.(a) What is Isomerism? Discuss Position Isomerism and Geometrical Isomerism 4
- (b) State and explain Aldol Condensation. Discuss its mechanism. 4

SECTION-III (PRACTICAL)

10. Attempt any three parts.

- (i) Write the qualitative analysis of Fe^{++} radical in systematic manner. 5

- (ii) Write the qualitative analysis of Ba^{++} radical in systematic manner. 5

- (iii) (i) Write the qualitative analysis of NO_3^{-1} radical in systematic manner. 4
- (ii) Describe Chromyl Chloride test. 1

- (iv) How will you detect S and X in an organic compound? 5

- (v) Write the materials required, equation and procedure for the preparation of Copper Amine Complex. 5