

"Section-B"

Marks: 40

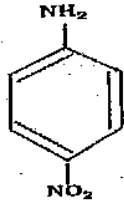
Q. 2. Write short answers of any Ten (10) of the following parts. Each part carries equal marks.

- (i) How beryllium differs from other members of its group?
- (ii) What is bond enthalpy? Support your answer by explaining enthalpy in halogens.
- (iii) Explain the catalytic behavior of transition elements.
- (iv) Differentiate between homocyclic and heterocyclic.
- (v) Discuss the mechanism of SN^2 reaction.
- (vi) What is the main difference between Metamerism and Tautomerism.
- (vii) Indicate at least four physical properties of Alcohols.
- (viii) What is Decarboxylation reactions? Give at least two examples.
- (ix) What are lipids? Give classifications of lipids.
- (x) What are adhesives? Give their importance.
- (xi) Give at least four applications of Green House Chemistry.
- (xii) How empirical formula can be calculated?
- (xiii) What methods are employed for control of SO_2 pollution?

"Section-C"

Marks: 27

Note: Answer any Three (3) questions. Each question carries equal marks.

- Q. 3. (a) Describe the effect of heat on Nitrates and Carbonates with at least one example each.
 (b) Discuss at least five characteristics of organic compounds.
- Q. 4. (a) How would you prepare the following compounds from Benzene?
 (i) Acetophenone (ii) Toluene (iii) Trinitrobenzene (iv) Benzene-sulphonic Acid
 (b) What are elimination reactions?
- Q. 5. (a) Give IUPAC names to the followings:
 (i) $K[PtCl_6]$ (iii) $(CH_3)_3CCOOH$
 (ii) $CH_3 - C = CH(CH_3)_2$ (iv) $CH_3 - \overset{O}{\parallel} C - (CH_2)_2 - CH_3$
- (v) 
- (b) Explain the role and nutritional importance of carbohydrates.
- Q. 6 (a) Explain the fractional distillation of petroleum.
 (b) Differentiate between atomic emission and absorption spectra.