

AS/2110

5192/1111

**Paper - II**  
**Organic Chemistry**

**Max. Marks : 26 Marks**

**Max. Time: 3 hrs**

**Min. Pass Marks : 35%**

Candidates are required to attempt two questions (4 marks each) selecting each from section A & B. Section C is compulsory (2 marks each question).

**SECTION - A**

1. Discuss the following:

(a) resonance and its significance.

(b) Aromaticity.

2. How carbene, carbocations and nitrenes produced? Discuss their relative stabilities?

3. Discuss mechanism of the following:

(a) Kolbe reaction.

(b) Isomerism in alkanes.

4. (a) Explain localized and delocalized chemical bond with example?

(b) Discuss any two methods of determination of reaction mechanism?

**SECTION - B**

5. Discuss Baeyer's strain theory and its limitations in detail?

6. (a) Discuss Saytzeff rule and Anti-Markownikoff's rule

(b) Give mechanism for hydroboration-oxidation of alkene

7. (a) Comment upon acidic character of terminal alkynes

(b) Give mechanism for electrophilic addition reactions of alkyne with suitable examples.

8. (a) Discuss polymerization of alkenes?

(b) Discuss nucleophilic addition reactions of alkyne with examples?

**SECTION - C**

9. (a) Discuss free radical halogenation of alkane with example?

(b) Explain Inductive effect?

(c) Discuss ring strain in cyclopropane?

(d) What is ozonolysis? How can ozonolysis be used to determine the position of double bond in unknown alkene?

(e) Discuss Diels-Alder reaction?