



HV-1612030701020300 Seat No. _____

**Master of Pharmacy Management (Sem. II)
(CBCS) Examination**

June / July - 2017

**Pharmaceutical Chemistry - II
(Organic Chemistry - I)**

Time : 3 Hours]

[Total Marks : 80

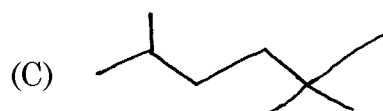
- Instructions :** (1) Attempt three questions from each section.
(2) Questions 1 and 5 are compulsory
(3) Tie each section separately.
(4) Figures to the right indicates full marks for the respective question.

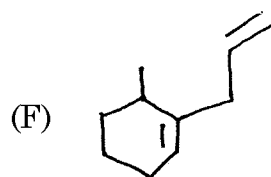
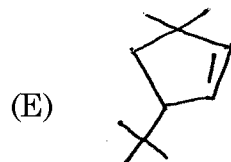
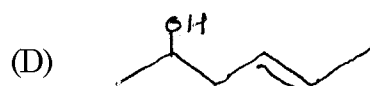
SECTION - I

1 Explain the following terms : (Any SEVEN) 14

- (1) Carbene
- (2) Nucleophile
- (3) Aromaticity
- (4) Bond dissociation energy
- (5) Markonikov Rule
- (6) Differentiate bonding molecular orbital and antibonding molecular orbital
- (7) Carbanion
- (8) Dienes
- (9) Ozonolysis
- (10) Saytzeff's rule.

2 (1) Give IUPAC name of the following : 7





- (2) Differentiate S_N1 and S_N2 reaction with suitable example and mechanism. **6**
- 3** (1) Define hybridization. Explain sp^3 hybridization with examples. **7**
- (2) Enumerate various methods for quantitative estimation of nitrogen. Describe any one in detail. **6**
- 4** (1) Explain Chlorination of Methane with mechanism. **7**
- (2) Explain reactions of Amines. **6**

SECTION – II

- 5** Answer the following questions: (Any TWO) **14**
- (1) What are polynuclear aromatic compounds? Describe in detail synthesis for anthracene.
- (2) Explain Diels-Alder reaction.
- (3) Explain electrophilic aromatic substitution reaction with suitable examples.

- 6 (1) What are reactive intermediates of carbon? Describe in detail any one of them. 7
- (2) Give in detail preparation of alkene. 6
- 7 (1) Explain reactions of alkynes. 7
- (2) Explain: Electronegativity, homolysis and heterolysis. 6
- 8 (1) Give an explanation regarding general reaction of alcohols. 7
- (2) 0.21 g of an organic substance containing C, H, O and N only, gave on combustion 0.462 g carbon dioxide and 0.1215 g of water. 0.104 g of it when distilled with caustic soda evolved ammonia which was neutralised by 15 ml of N/20 H_2SO_4 . Calculate empirical formula. 6
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