

Enrollment No: \_\_\_\_\_ Exam Seat No: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Summer Examination-2017

Subject Name: Pharmaceutical Chemistry-III (Organic Chemistry-I)

Subject Code: 4PS02PCH3

Branch: B.Pharm.

Semester: 2 Date: 04/05/2017

Time: 02:00 To 05:00

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
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**Q-1**

**Answer the following questions.**

- |   |   |
|---|---|
| a) What is angular momentum quantum number?                               | 1 |
| b) Define Saytzeff rule.  | 1 |
| c) What is Antimarkovnikov rule?  | 1 |
| d) Why acetylene is acidic in nature?                                     | 1 |
| e) Write example of Nucleophilic reagent.                                 | 1 |
| f) Define the various types of Hybridization occurs in organic compounds? | 1 |
| g) Define various types of Hydrogen bonding giving example.               | 1 |
| h) What is electronegativity? How it influence bond polarity?             | 1 |
| i) Define various types of bond fission.                                  | 1 |
| j) Write one example of Rearrangement reactions.                          | 1 |
| k) Define polar covalent bond with example.                               | 1 |
| l) Write one example of addition reaction in cycloalkane.                 | 1 |
| m) Define hyperconjugation.   | 1 |
| n) Define electromeric effect.  | 1 |

**Attempt any four questions from Q-2 to Q-8**

**Q-2**

**Attempt all questions**

- |   |   |
|---|---|
| a) Describe the four quantum numbers and write their significance.          | 7 |
| b) Write the various preparation methods and chemical reactions of alkynes. | 7 |

**Q-3**

**Attempt all questions**

- |  |   |
|--|---|
| a) Write the Structure and Stability of Carbonium ion and Carbanion ion. | 7 |
| b) Describe the various conformational analysis of cyclohexane.          | 7 |

**Q-4**

**Attempt all questions**

- |  |   |
|--|---|
| a) Write the various methods of preparation of cycloalkanes. | 7 |
| b) Describe Bayer strain theory?                             | 7 |



- Q-5**            **Attempt all questions**
- a) Write various methods of preparation of Haloalkanes.            **7**
  - b) What is nucleophilic substitution reaction? Differentiate between  $SN_1$  and  $SN_2$  reactions.            **7**
- Q-6**            **Attempt all questions**
- a) Write various methods of preparation of Alcohols.            **7**
  - b) Describe the various chemical properties of Alcohols.            **7**
- Q-7**            **Attempt all questions**
- a) Write various methods of preparation of Ethers.            **7**
  - b) Describe the various chemical properties of Ethers.            **7**
- Q-8**            **Attempt all questions**
- a) Write various methods of preparation of Amines.            **7**
  - b) Describe the various chemical properties of Amines.            **7**

