

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Organic Chemistry - I**Subject Code: 4SC03OCH1****Branch: B.Sc. (Chemistry)****Semester: 3****Date : 13/03/2019****Time : 02:30 To 05:30****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 Attempt the following questions: (14)**
- a) What do you mean by inductive effect? (1)
 - b) Due to which bond isomeric alcohol has higher boiling point than isomeric ether? (1)
 - c) Define: substitution reaction. (1)
 - d) Which hetero atom is present into thiophene? (1)
 - e) Give the structure of pyrrole. (1)
 - f) Acid reacts with alcohol and gives.... (1)
[A] amide [B] ester
[C] alcohol with one carbon less [D] acid with one carbon less
 - g) Which product will be obtained when reduction of furan occurs in presence of H_2/Ni at $200^{\circ}C$? (1)
 - h) Secondary alcohols are oxidized to give.... (1)
[A] amide [B] ester
[C] ketone [D] acid
 - i) Give the structure of 2-Pentanone. (1)
 - j) Define: nucleophile. (1)
 - k) What is Aldol condensation? (1)
 - l) Which type of substitution reaction occurs in friedel crafts alkylation? (1)
 - m) What is carbocations? (1)
 - n) Give the structure of valeric acid? (1)

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

- Q-2 Attempt all questions (14)**
- a) Write note on 'carbanions' and discuss its stability also. (5)
 - b) Write a note on aromaticity with huckel's rule. (5)
 - c) What is inductive effect and resonance effect? Explain with example. (4)
- Q-3 Attempt all questions (14)**
- a) Give brief information about electrophilic aromatic substitution reaction with any three reactions of it. (7)
 - b) Explain hybridization with example. (5)
 - c) Give the structure of (1) methyl ethyl ketone and (2) cinnamic acid (2)



