

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Organic Chemistry-II

Subject Code: 4SC04OCH1

Branch: B.Sc. (Chemistry, Physics)

Semester: 4

Date: 26/04/2018

Time: 10:30 To 01:30

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) How many isoprene units are present in Diterpene? (1)
 - b) Give one example of Curtius reaction. (1)
 - c) Define: Alkaloids (1)
 - d) Define: Isoprene rule (1)
 - e) Draw the structure of atenolol. (1)
 - f) Opium contains _____% of morphine and _____% of Cinchona. (1)
 - g) Give the structure of geranic acid. (1)
 - h) Give the name of any two methods for the isolation of essential oil from plant. (1)
 - i) Give the structure of methyl orange. (1)
 - j) Draw the chemical structure of Nicotine. (1)
 - k) Give the name of method by which $-OCH_3$ group can be detected. (1)
 - l) Define: stas-otto process (1)
 - m) Potassium mercury iodide known as _____ reagent. (1)
 - n) Define the term 'Drugs'. (1)

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

- Q-2 Attempt all questions (14)**
- a) Discuss Mannich reaction with mechanism and give its applications. (7)
 - b) Give the synthesis and its applications of Ibuprofen. (7)
- Q-3 Attempt all questions (14)**
- a) Discuss Hoffmann rearrangement with mechanism and give its applications. (7)
 - b) Give the synthesis and uses of Malachite green. (7)



- Q-4 Attempt all questions (14)**
- a) Discuss Fries rearrangement with mechanism and give its applications. (7)
- b) Give the synthesis and uses of Alizarin. (7)
- Q-5 Attempt all questions (14)**
- a) Explain the classification of alkaloids on the basis of sources and presence of heterocyclic ring with suitable examples. (7)
- b) Discuss Michael reaction with mechanism and application. (7)
- Q-6 Attempt all questions (14)**
- a) Discuss on the constitution of Coniine. (7)
- b) Give the evidence for the presence of –CHO, Isopropylidene, Acyclic structure, –C=C– group in Citral. (7)
- Q-7 Attempt all questions (14)**
- a) Give the synthesis of Citral. (7)
- b) Write a note on general procedure for determining structure of terpenoids. (7)
- Q-8 Attempt all questions (14)**
- a) Explain two types of the classification of terpenoids. (7)
- b) Discuss Grignard reaction with mechanism and give its applications. (7)

