

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4SC04CHC1

Subject Name: Chemistry-VII

Course Name: B.Sc.

Date: 19/5/2015

Semester: IV

Marks: 70

Time: 10:30 TO 01:30

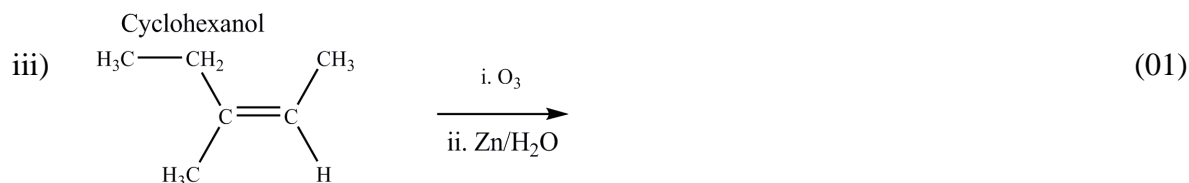
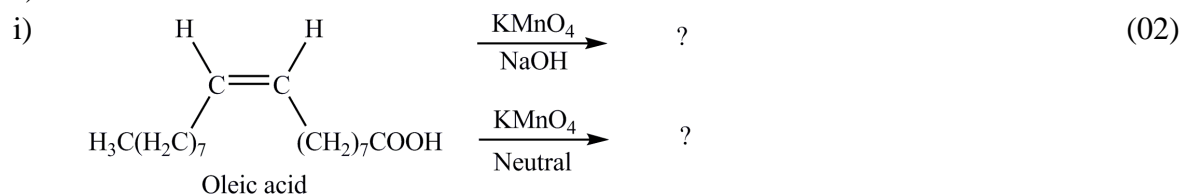
Instructions:

- 1) Attempt all Questions in same answer book/Supplementary.
- 2) Use of Programmable calculator & any other electronic instrument prohibited.
- 3) Instructions written on main answer book are strictly to be obeyed.
- 4) Draw neat diagrams & figures (if necessary) at right places.
- 5) Assume suitable & perfect data if needed.

SECTION-I

Q-1 Do as Directed.(All Questions are compulsory) (07)

- a) What are the reagents used in Stephen reaction? (01)
- b) What is special isoprene rule? (01)
- c) Which name reaction involves migration of organic group from N atom to e-efficient C atom? (01)
- d) Write the reaction outcome.



Q-2 Answer the following in detail. (14)

- a) Write the chemical reactions for determining constitution of citral. (05)
- b) Write the synthesis of menthol given by Kotz and Hese. (05)
- c) What are different geometrical isomers of β -carotene. (04)

OR



- Q-2 Answer the following in detail. (14)
- What are terpenoids? Give classification of terpenoids with suitable examples of monoterpenoids. (05)
 - What is the molecular orbital theory associated with Ene reaction? (05)
 - Write a note on Vitamin-A. (04)

- Q-3 Answer the following in detail. (14)
- What are the applications of Lithium Aluminium Hydride in organic synthesis? (07)
 - What are different types of carotenoids? Write a note on general properties of carotenoids. (07)

OR

- Q-3 Answer the following in detail. (14)
- Explain Skraup reaction and Ullmann reaction with mechanism. (07)
 - What are the applications of ozone and silanes in organic synthesis? (07)

SECTION-II

- Q-4 Do as Directed.(All Questions are compulsory) (07)
- Write short note on epimeric structures of carbohydrates. (02)
 - Write a note on zwitterionic nature of amino acids. (02)
 - Draw the structures of paludrine, diamondblack-F and congored. (03)

- Q-5 Answer the following in detail. (14)
- Define carbohydrates. Give classification of carbohydrates with suitable examples. (05)
 - Draw the reaction scheme for the synthesis of cibazole and phenacetin. (05)
 - What are the different cyclic structures of glucose? (04)

OR

- Q-5 Answer the following in detail. (14)
- Define drug. What are the different types of drugs? (05)
 - Draw the reaction scheme for the synthesis of methyl orange and malachite green. (05)
 - Write the reaction procedure and scheme for the preparation of indigotin dye. (04)
- Q-6 Answer the following in detail. (14)
- Explain the reactions for lengthening and shortening of carbon chain in aldose. (07)
 - Give classifications of amino acids with suitable examples. (07)

OR

- Q-6 Answer the following in detail. (14)
- What are the different chemical properties of glucose? Write the chemical reactions of glucose with suitable examples. (07)
 - Write a note on dyes. Give different classifications of dyes with suitable examples. (07)



