School of Basic Sciences

Department of Basic Sciences
Mid Term Examination

Exam Date: 26 Sep 2023
Time : 90 Minutes
Marks : 50

Sem V - C1UB501T - Organic Synthesis-A

Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1)	Summeraize first three compounds in homologus series of alkene with structure.	K2	(2)
2)	Why n-hexane has high boiling point among n-pentane, n-hexane and n-butane, state with reason.	K1	(3)
3)	Illustrate Kolbe's synthesis for alkane with mechanism.	K2	(4)
4)	Explain the properties of alkane and explain which has high boiling point among n-pentane, Iso-butane, 2-methyl butane, 2,2-dimethyl propane.	K2	(6)
5)	Utilizing different preparation method of alkyne, synthesize the following a) Acetylene from choloroform b) 1-butyne from acetylene.	K3	(6)
6)	Applying Bayer strain theory, calculate angle strain and discuss the stability of diffferent cycloalkanes (C3-C6).	K3	(9)
7)	Compare the stability of different confirmations of cyclohexane with potential energy digram.	K4	(8)
8)	Analyze the following reactions with mechanism. i) Oxymercuration demercuration ii) Oznolysis of 2-butyne.	K4	(12)

OR

	Analyze the stability of following: i) Different confirmations of butane with potential energy diagram. ii) cis and trans confirmations of 1,3-dimethyl cyclohexane with structure.	K4	(12)