

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III(New) EXAMINATION – SUMMER 2016

Subject Code:2130501**Date:27/05/2016****Subject Name:Organic Chemistry and Unit Processes****Time:10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	Short Questions	14
	<ol style="list-style-type: none">1 Which radical is obtained after bracking of covalent bond ?2 Resolution of Racemic mixture means compound is optically.3 Give one example of Unit process.4 Write the chemical formula of Oxalic acid.5 What do you meant by hetero atoms ?6 What do you meant by spent acid ?7 What is Halogenation ?8 Which is the best example of polynuclear compound ?9 How many chiral carbon present in glucose ?10 Which is other name of Beat sugar ?11 Which effects are also known as redship and blueship ?12 Give the one example of anticracking.13 Why should nail and hair insoluble in water?14 What is chromogen ?	
Q.2	(a) Classification of dye based on application and structural representation.	03
	(b) Explain synthetic petrol by Bergius process.	04
	(c) Discuss about the manufacturing process of nitrobenzene from benzene by continuous nitration with fortified spent acid.	07
OR		
	(c) What is amination by reduction? Discuss various chemical and physical factors affecting an amination by reduction.	07
Q.3	(a) Explain chemistry of Dextrose.	03
	(b) Explain antimalarial drug with suitable example.	04
	(c) What do you understand by electrophile and nucleophile? Exaplain reaction and mechanism of addition reaction.	07

OR

Q.3	(a)	Classification of proteins.	03
	(b)	Describe octane and cetane number with suitable examples,	04
	(c)	What is optical activity? Explain optical activity in tartaric acid.	07
Q.4	(a)	Write the derivatives of naphthalene.	03
	(b)	Classification of bond fission with examples.	04
	(c)	Discuss preparation, properties and applications of Palmitic and stearic acid.	07
		OR	
Q.4	(a)	Write the derivatives of carboxylic acid.	03
	(b)	What do you understand by geometrical isomerism ?	04
	(c)	Explain chemistry of any two five member ring of hetero cyclic compounds.	07
Q.5	(a)	What do you understand by polymerization ?	03
	(b)	Write the industrial applications of dye and pigments.	04
	(c)	Manufacturing of canesugar from sugar cane with flow sheet diagram.	07
		OR	
Q.5	(a)	Define halogenation, hydrogenation and hydrolysis.	03
	(b)	Write the applications of sulphur drugs.	04
	(c)	Describe the reaction, mechanism and applications of Michael Reaction.	07
