Sea	nt No.:	Enrolment No		
GUJARAT TECHNOLOGICAL UNIVERSIT BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 20 Subject Code:130501 Date		GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 2016 Code:130501 Date:03/01/201	Y 016	
Subject Name:Organic Chemistry and Unit Processes Time:10:30 AM to 01:00 PM Instructions: Total N		0:30 AM to 01:00 PM Total Marks: '	70	
		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	Define the following terms. (1) Homolytic bond fission. (2) Colour. (3) Chiral carbon. (4) Heterocyclic. (5) Monomer. (6) Optical isomer. (7) Spent acid. Explain modern theory of colour with Bathochromic effect and Hipsochromic.	07	
	(b)	Explain modern theory of colour with Bathochromic effect and Hipsochromic effect.	U/	
Q.2	(a)	Describe continuous process for preparation of Nitrobenzene with fortified spent acid.	07	
	(b)	Describe preparation of synthetic petrol with its applications. OR	07	
	(b)	Write mechanism and applications of Perkin condensation and Cannizzaro reaction.	07	
Q.3	(a) (b)	Explain Geometrical isomerism in tartaric acid and Valeric acid. Write reaction and mechanism of Halogenation with suitable example. OR	07 07	
Q.3	(a) (b)	Explain chemistry of Aceton and Chloroform with uses. Explain Isolation, Properties and uses of Benzene.	07 07	
Q.4	(a) (b)	Manufacturing process with flow-sheet diagram of sucrose from sugar-cane. Write the conversion of Aldopentose to next higher Aldose by Killiani synthesis.	07 07	
Q.4	(a)	OR Explain preparation, properties and uses of Phenol and Amine.	07	

Explain preparation, properties and uses of Grignard reagents.

What is polynuclear compound? Explain sulphonation in Naphthalene.

Explain five member ring Heterocyclic compounds of Furan and Pyrrole.

Differentiate between natural and synthetic polymer with suitable example and

Differentiate between soap and detergent with its uses.

(b)

(a)

(b)

(a)

(b)

its applications.

Q.5

Q.5

07

07

07

07

07