Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV(New) EXAMINATION – SUMMER 2016

Subject Code:2142809 **Date:06/06/2016**

Subject Name:Chemistry of Intermediates & Dyes

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**
	1	Enlist different Unit processes	01
	2	Which property is imparted by sulphonation to the	01
	3	What are Mixed Acids ?	01
	4	Nitrobenzene is converted to Aniline by which Unit process.	01
	5	What are Fluorescent Dyes ?	01
	6	Which groups are introduced on Halogenation.	01
	7	Which dyes are used for paper dyeing	01
	8	Explain the principal of Freidal craft reaction	01
	9	Which dyes are ecofriendly	01
	10	What do you understand by carcinogeniec dyes ?	01
	11	Are all Dierct dyes carcinogens ?	01
	12	Which groups in benzene series are meta directing ?	01
	13	Give the structure of H-acid	01
	14	Name two important acids obtained by Bucherer rection	01
Q.2	**(a)**	Explain Sulphonation unit process	**03**
	(b)	Give the importance of Mixed Acids.	**04**
	(c)	Describe Desulphonation.	**07**
		OR	
	(c)	Describe and obtain important intermediates by sulphonation of Naphthalene.	**07**
Q.3	**(a)**	Explain Bucherer reaction.	**03**
	(b)	By using this reaction, give synthesis of some intermediates	**04**
	(c)	Describe the manufacturing process of H acid	**07**
		OR	
Q.3	**(a)**	Explain chlorination unit process	**03**
	(b)	Where and why Friedal crafts reaction are used.	**04**
	(c)	Show the synthesis of any one Direct dye ?	**07**
Q.4	**(a)**	Give some important properties of Reactive Dyes ?	**03**
	(b)	What are Vat dyes.	**04**
	(c)	Classify dyes based on their chemical structure.	**07**
		OR	
Q.4	**(a)**	What is German Ban	**03**
	(b)	Explain the effects of carcinogenic Dyes	**04**
	(c)	Give Non Textile uses of Dyes	**07**
Q.5	**(a)**	What do you understand by Orientation Rule in Benzene series	**03**

	(b)	Classify different directing groups in Benzene series	**04**
	(c)	Explain the concept of Orientation in detail	**07**
		OR	
Q.5	**(a)**	What are water soluble dyes	**03**
	(b)	Give properties of Direct dyes	**04**
	(c)	Explain its Dyeing process	**07**

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