Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER 2013

Subject Code: 152801 Date: 27-11-2013

Subject Name: Chemistry of Intermediates and Dyes

Time: 10.30 am - 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.**

Q.1	**(a)**	Enlist different unit processes. Explain Sulphonation and Desulphonation unit processes.	**07**
	(b)	Write a note on Color and its chemical constitution.	**07**
Q.2	**(a)**	Enumerate different Reduction methods of Nitro compounds. Explain any two in detail	**07**
	(b)	Describe Valence bond theory in detail	**07**
		OR	
	(b)	Discuss about Molecular orbital theory.	**07**
Q.3	**(a)**	Give the synthesis of following Intermediates: (a) Schaffer acid (b) Sulphanilic acid.	**07**
	(b)	What is Halogenation? Describe Chlorination in detail with examples.	**07**
		OR	
Q.3	**(a)**	Describe Dow and Cumene process in detail.	**07**
	(b)	What is Oxidation? Describe vapor phase oxidation in detail.	**07**
Q.4		Write notes on: (a) Coal-tar distillation (b) Friedal- Craft's reaction.	**14**
		OR	
Q.4		Describe detail classification of dyes according to its application methods.	**14**
Q.5		Write notes on ANY TWO: (a) Bucherer Reactions (b) Nomenclature of dyes (c) Non Textile uses of dyes (d) Armstrong's Theory of Colour	**14**

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