Seat No.:	Enrolment No.
Deat 110	Lindinent 140.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER V • EXAMINATION – WINTER - 2012				
Subject code: 152805 Date: 23-01-2013				
Subje	ect	Nan	ne: Production and Applications of Colorants and Auxiliaries	
Time: 02:30 pm to 05:00 pm Total Marks: 70				
Instru				
	1. Attempt all questions.			
			Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
		8		
Q.1		(a)	Describe Coal-tar distillation process with neat diagram.	07
		(b)	Give manufacturing of H-acid & J-acid with chemical reactions.	07
Q.2		(a)	What is Oxidation? Explain in detail with suitable examples.	07
		(b)	Give the definition of color. Discuss Witt's theory in detail.	07
		(b)	OR What is ablamation? Evaloin in detail with suitable evamples	07
		(b)	What is chlorination? Explain in detail with suitable examples.	07
Q.3		(a)	Discuss non-textile uses of the dye stuff in detail.	07
		(b)	Discuss about Leveling agents & Dispersing agent.	07
Q.3		(a)	OR Explain Bechamp Reduction in detail with necessary chemical reaction.	07
Ų.S		(a) (b)	Explain role of Carriers in dyeing and role of discharging agents in	07
		()	printing.	
0.4		(·)		07
Q.4		(a) (b)	Explain theory of surface activity and role of surfactants. Define cationic surfactant. Discuss in detail any one class with suitable	07 07
		(6)	example.	07
			OR	
Q.4		(a)	Discuss in detail about dye fixing agent & Anti foaming agents with	07
Q.4		(b)	mechanism of their functioning. Justify the need of buffers and sequestering agents in textile wet	07
ζ		(~)	processing with examples.	
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Q.5		(a) (b)	Discuss in detail about Oxidizing & Reducing agents. Discuss the concept of HLB and its significance in Textile wet processing.	07 07
		(D)	OR	U/
Q.5		(a)	Define anionic surfactants. Discuss any one class of anionic surfactant in	07
		(1)	detail.	o -
		(b)	Define nonionic surfactants. Discuss any one class of anionic surfactant in detail.	07
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