Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 132904 **Date: 05-01-2013**

Subject Name: Textile Processing-I

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)**	Classify dyes according to their applications and state the name of suitable dyes for textile fibres.	**07**
	(b)	Explain the functions of bleaching department with sequence of processes carried out on grey fabric.	**07**
Q.2	**(a)**	Discuss the damage to the cotton fabric in processing department with effects of acids, alkalis and oxidizing agents.	**07**
	(b)	What is dyeing? Explain the objectives of a dyeing department.	**07**
		OR	
	(b)	Explain the following terms and establish relationship among them. 1. shade percentage 2. M.L.R 3. Concentration and exhaustion of a dyeing bath.	**07**
Q.3	**(a)**	Discuss why sodium hypochlorite bleaching is carried out at pH 10-11.	**07**
	(b)	Explain enzyme desizing with characteristics, process parameters and methods.	**07**
		OR	
Q.3		State and discuss hydrogen peroxide bleaching recipe and process conditions.	**14**
Q.4		Describe in detail dyeing process of any two dyes from the followings. 1. Reactive 2. Vat 3. Naphthol 4. Direct	**14**
		OR	
Q.4	**(a)**	Explain important factors and precautions in package dyeing and describe any one package dyeing machine.	**07**
	(b)	Describe jigger dyeing machine.	**07**
Q.5	**(a)**	Explain scouring process with functions and process parameters.	**07**
	(b)	Describe dyeing of polyester /cotton blend fabric.	**07**
		OR	
Q.5	**(a)**	Explain shearing and singeing with details of machines and type of fibres	**07**
	(b)	Describe jet dyeing machine.	**07**

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