

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III(New) EXAMINATION – SUMMER 2016

Subject Code:2132904**Date:31/05/2016****Subject Name:Textile Processing - I****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 White dyes are in existence. True/False.	1
	2 Define ‘% shade’.	1
	3 Shearing and cropping machine runs on the principle of _____.	1
	4 The main object of scouring of cotton textiles is to impart _____.	1
	5 Direct dyes show poorest result towards _____ agency.	1
	6 Knitted woollen textiles should be dyed on _____ dyeing machine.	1
	7 Rust stains can be easily removed using _____.	1
	8 Water is the main ingredient in _____ method to carry out desizing of cotton textiles.	1
	9 The function of sodium silicate in peroxide bleaching is _____.	1
	10 Classify direct dyes.	1
	11 Jet dyeing machine is used to dye _____ fabrics.	1
	12 Vinyl sulphone is the chemical class associated with _____ dyes.	1
	13 Name any two dyes applied on nylon.	1
	14 Oil stains removed at the stage of grey inspection is called _____.	1
Q.2	(a) Briefly explain about exhaustion and fixation of dyes.	03
	(b) Give classification of desizing methods. Discuss about rot steeping in detail.	04
	(c) State the application process to dye cotton textile with MCT reactive dyes with idea of each ingredient used.	07
	OR	
	(c) Describe the techno-chemical aspects of bleaching cotton textiles with hydrogen peroxide.	07
Q.3	(a) State various after treatments applied on direct dyed cotton fabrics.	03
	(b) Classify dyes according to their applications.	04
	(c) Depict the construction and working of conventional singeing machine.	07
	OR	
Q.3	(a) Differentiate dyes and pigments.	03
	(b) Enumerate on shearing and cropping process with its significance.	04

- (c) State the complete process to dye wool fabric with acid dyes with the classification of acid dyes and suitable ingredient involved in each. **07**
- Q.4** (a) Give the general sequence of wet processing. **03**
 (b) Discuss technological aspects involved with chlorine desizing method. **04**
 (c) Explain pressure kier scouring machine with neat sketch. **07**
- OR**
- Q.4** (a) Describe the suint scouring method for wool. **03**
 (b) What are enzymes? Give their principle working. **04**
 (c) Explain the construction and working of jigger dyeing machine. **07**
- Q.5** (a) Enlist the ingredients used in scouring process. **03**
 (b) Write note on vatting of vat dyes. **04**
 (c) Discuss about sodium hypochlorite bleaching including different process parameters. **07**
- OR**
- Q.5** (a) Briefly elaborate the steps involved with azoic colour dyeing. **03**
 (b) Write a brief note on mercerization process. **04**
 (c) Describe about complete HTHP dyeing process of polyester textiles using disperse dyes. **07**
