

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III (New) EXAMINATION – WINTER 2019

Subject Code: 2132904

Date: 5/12/2019

Subject Name: Textile Processing - I

Time: 02:30 PM TO 05:00 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	(a) List the impurities present in a grey cotton fabric.	3
	(b) Why can you not dye all the textile materials using a single dye?	4
	(c) What are the sequences of operation given to cotton grey fabric up to finishing.	7
	(c) Discuss each process in brief.	
Q.2	(a) What is bleaching?	3
	(b) Discuss the process of rot steeping desizing.	4
	(c) Explain different types of bleaching agents and their importance.	7
	OR	
	(c) Describe jigger dyeing machine with a neat sketch.	7
Q.3	(a) Give the advantages of dyeing loose cotton.	3
	(b) Describe the method for application of hot brand reactive dyes on cotton.	4
	(c) Depict the construction and working of gas singeing machine.	7
	OR	
Q.3	(a) Briefly explain about exhaustion and fixation of dyes.	3
	(b) Classify dyes according to their applications.	4
	(c) Explain the terms: Saponification, Emulsification, Wetting and Detergency in context to scouring.	7
Q.4	(a) Enlist water-soluble dyes.	3
	(b) Discuss technological aspects involved with chlorine desizing method.	4
	(c) What is scouring? Enlist various methods of scoring cotton fabric and discuss any one in detail.	7
	OR	
Q.4	(a) What is the need of singeing process?	3
	(b) State the advantages of peroxide bleaching.	4
	(c) What are the enzymes? Discuss enzymatic desizing process.	7
Q.5	(a) Differentiate dyes and pigments.	3
	(b) Discuss the objectives of desizing process. Give the detail classification of desizing processes.	4
	(c) Elaborately discuss the process of dyeing cotton with direct dyes. Name the treatments used to improve the washing fastness of direct dyeing.	7
	OR	
Q.5	(a) What are reactive dyes?	3
	(b) Polyester fibre is difficult to dye. Why?	4
	(c) Explain the chainless padless mercerising machine with a neat sketch.	7
