Seat No.: Enrolment	No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION – SUMMER • 2014

Sul	bject	Code: 132803 Date: 28-05-2014	
Sul	bject	Name: Scouring and Bleaching - I	
Tir	ne: 0	2.30 pm - 05.00 pm Total Marks: 70	
Inst	ructio		
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) i. ii. iii. iv. v.	Give reasons: Air vent valve is kept open before the full pressure is developed in kier Always vat dye is preferred for coloured woven fabrics In m/c chemicking, pits are always arranged in pairs. Chemicking should not be carried out at neutral pH Gas singeing unit is always installed away from other departments of processing	10
	(b)	Describe with neat diagram the working of tight rope washing machine	04
Q.2	(a)	What is difference between chemical bleaching agent and physical bleaching agent? Explain the whitening of textiles obtained by bluing and optical brightening agents.	07
	(b)	Enlist its characteristic features fluorescent brightening agents OR	07
	(b)	Give a critical review on bleaching of cotton fabric with hydrogen peroxide.	07
Q.3	(a)	Give a critical review on hydrogen peroxide bleaching.	07
	(b)	Enlist various oxidative desizing methods. Discuss any one in detail. OR	07
Q.3		Describe in detail various techno-chemical aspects of enzymatic desizing process.	14
Q.4	(a)	Describe the functions and working of shearing and cropping machine.	07
	(b)	State detailed description of most popular method of singeing. OR	07
Q.4		Enumerate different types of continuous bleaching ranges. Describe with neat diagram the working of any one open width bleaching range.	14
Q.5	(a)	Differentiate between scouring and souring. Explain the souring process in detail	07
	(b)	Correlate the effect of pH on sodium hypochlorite bleaching process in context to the stability.	07
Q.5		OR Describe in detail various types of natural impurities present in cotton fibes.	14
