Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION - SUMMER • 2014

Su	bjec	et Code: 163608 Date: 28-05-2014	
Su	bjec	et Name: Principles of Dyeing and Printing	
Ti	me:	10:30 am - 01:00 pm Total Marks: 70	
Ins	tructi		
	2	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	Why is pretreatment of fabric needed? Draw a flow sheet of fabric dyeing.	07
Q.2	(b) (a)	How is printing different from dyeing? Describe different methods of printing. Write a note on jigger and padding mangle	07 07
	(b)	Give the structure of wool and silk. Explain different bonding in wool fibre and their importance.	07
	4	OR	
	(b)	Describe various material of constructions used for vessels and their compatibility with dyes.	07
Q.3	(a)	(i) Classify vat dyes and explain principle and process of vat dyeing.	04
	(b)	(ii) Draw the structure of cotton fibre and draw the flow chart of pretreatment of cotton.(i) Describe hank dyeing.	03 04
	(D)	(ii) Explain the role of humectants and reducing agents in printing paste? OR	03
Q.3	(a)	(i) What is Kier boiling? Write a note on affinity and substantivity.	04
		(ii) Explain Zwitter ion, Keratinisation, Mordant dyeing	03
	(b)	(i) Explain the concept of yarn, cheese, hank and cop	04
0.4	()	(ii) Write a note on Physicochemical equilibrium of dyeing	03
Q.4	(a)	What are the different types of machinery available for loose cotton dyeing?	07
	(b)	What are the different types of hank dyeing available?	07
		OR	
Q.4	(a)	What are the advantages of cheese and cop dyeing along with difference between the two?	07
	(b)	What are the various components present in printing paste and their role in printing	07
Q.5	(a)	Describe roller printing in detail.	07
	(b)	(i) Explain the properties of printing as a coloration technique.(ii) Write a note on Rope dyeing and jet dyeingOR	07
Q.5	(a)	(i)Describe block printing	04
~	` /	(ii)Explain discharge printing	03
	(b)	(i) Write a note on tie and dye method.	04
		(ii) Describe various methods of coloring fabrics ?	03
