



GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2163608

Date:08/05/2018

Subject Name:Technology of Dyeing

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 (a) Explain the classification of textile fibres based on source.	03
(b) Explain pre-treatment method for application of reactive dye on cotton fabrics.	04
(c) Discuss in detail, the general properties of textile fibres?	07
Q.2 (a) What is liquor to fiber ratio? Discuss the range for better utilization of dye?	03
(b) Discuss the difference between natural and synthetic fibers.	04
(c) Explain the reactivity & affinity of reactive dye towards textile fibre.	07
OR	
(c) Explain Maxi Type Jumbo Jigger Machine with its salient features.	07
Q.3 (a) Write a short note on Steam heated cylinders	03
(b) Explain the Dye-Water interactions in a dyeing system?	04
(c) Discuss the different types of Dye-Fibre bonding in dyeing systems?	07
OR	
Q.3 (a) Write a short note on hot flue driers.	03
(b) Discuss the horizontal cylinder dryers with its construction and working principle.	04
(c) Briefly explain batch wise dyeing of cellulose fibres with dichlorotriazine dyes.	07
Q.4 (a) Write a short note on hot air dryers.	03
(b) Discuss the dye absorption in exhaust dyeing process.	04
(c) Explain Clauder Weldon dyeing machine with neat sketch.	07
OR	
Q.4 (a) Write a short note on dry steamers.	03
(b) Differentiate Batch Dyeing & Continuous Dyeing methods.	04
(c) Explain Winch dyeing machine with neat sketch.	07
Q.5 (a) Write a short note on Beaker Dyeing Machine.	03
(b) Discuss microwave assisted dyeing process.	04
(c) Which instrument is used for colour matching determination of dyed fibres? Explain with its principle?	07
OR	
Q.5 (a) Discuss the importance of Tg in dye fiber interactions.	03
(b) Explain cold pad batch dyeing with schematic diagram.	04
(c) Explain 'U' Type Fabric Dyeing Machine operated with high temperature and high pressure?	07