

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER VI EXAMINATION – SUMMER 2016**

**Subject Code: 2163608****Date: 17/05/2016****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.

- Q.1** (a) Explain the mechanism and process sequence of color discharge printing(background dye discharge). What reagents are used? What kind of dyes are used for dyeing and printing? **07**
- (b) What is resist printing? What are different resist reagents used? (physical and chemical) **07**
- Q.2** (a) Explain any two cheese dyeing machines with diagram. **07**
- (b) Explain with diagram any two batch processes for fabric dyeing **07**
- OR**
- (b) Explain with diagram any two continuous processes for fabric dyeing **07**
- Q.3** (a) What is the effect of polarity of dye and fabric on the rate of dyeing? **07**
- (b) Give chemical structures of any four fibres and mention which dyes have affinity towards the fibres. **07**
- OR**
- Q.3** (a) Enlist ingredients in printing paste. Explain function of each with examples of each type of reagent **07**
- (b) What modifications are done to reducing agents to make Rongolite C and Safoline? Why these modifications are made? **07**
- Q.4** (a) What are functions of desizing? Explain in detail different reagents used for it along with their advantages and disadvantages. **07**
- (b) Explain in detail singeing process. **07**
- OR**
- Q.4** (a) Why rate of dyeing is low in fabric than in loose cotton? Why output of fabric is greater than loose cotton? **07**
- (b) What are problems faced while dyeing of vat dyes? How to tackle them? **07**
- Q.5** (a) Write a brief note on reactivity and affinity of the reactive dyes. **07**
- (b) i) Explain the function of urea in Pad Dry process of reactive dyes. **07**
- ii) Write a short note on Cylinder drying.
- OR**
- Q.5** (a) Write a brief note on Pad-batch process for cold and hot brand reactive dyes with dyeing conditions. **07**
- (b) Write a brief note on exhaust dyeing of Remazol dyes. **07**

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