

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III • EXAMINATION – WINTER 2013

Subject Code: 132803**Date: 30-11-2013****Subject Name: Scouring and Bleaching - I****Time: 02.30 pm - 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.

- Q.1** (a) Answer the following OBJECTIVE questions: **07**
- i. Define 'volume strength' of hydrogen peroxide.
 - ii. What is the function of buffer tank in kier?
 - iii. The reducing behaviour of cellulose is evaluated by ----- test.
 - iv. The main ingredient used for rot steeping process is-----.
 - v. Rust stains can be easily removed using -----.
 - vi. Burning off the protruding fibres is known as -----.
 - vii. De-esterification of oil is known as -----.
- (b) Discuss the bleaching of cotton fabric with Hydrogen Peroxide. **07**
- Q.2** (a) What is singeing? Describe with neat diagram the most conventional method of singeing. **07**
- (b) Enlist various merits and demerits of chemicking and peroxide bleaching. **07**
- OR**
- (b) Discuss about slack and tight rope washing machines with neat sketch. **07**
- Q.3** (a) Describe with proper illustrations, the functions of caustic soda and surface active agents in scouring process. **07**
- (b) Discuss various technical aspects involved with scouring of coloured woven goods. **07**
- OR**
- Q.3** (a) Describe with neat diagram the working of any one continuous bleaching range suitable for open width fabric. **10**
- (b) Write a note on solvent scouring of textiles. **04**
- Q.4** (a) What are enzymes? Explain their role in desizing process with mechanism involved. **07**
- (b) Discuss the detailed inspection of grey goods. Also show the remedies for the faults if found in it. **07**
- OR**
- Q.4** (a) State the detailed description of shearing and cropping process. **07**
- (b) Write in brief on natural impurities present in cotton fibres with their composition. **07**
- Q.5** (a) Explain the corrosion problem associated with sodium chlorite bleaching with precautionary measures involved. Also give the mechanism involved. **10**
- (b) Enlist various advantages and limitations of J-Box. **04**
- OR**
- Q.5** (a) Discuss in detail the mechanism and application of physical bleaching agents. **07**
- (b) Write a detailed note on Kiering. **07**
