

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. - SEMESTER – III • EXAMINATION – WINTER 2012****Subject code: 132803****Date: 05-01-2013****Subject Name: Scouring & Bleaching - I****Time: 10.30 am – 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)** Answer the following OBJECTIVE questions: **10**
1. Give the repeat unit of cotton.
 2. Colourless dyes are in existence. True/False. Justify the answer.
 3. Starch degrading enzymes are known as _____.
 4. Commercially Sodium chlorite is known as _____.
 5. Fabrics in form of small loops are washed in _____ machine.
 6. State the function of sodium silicate in hydrogen peroxide bleaching.
 7. Give the chemical structure of stearic acid.
 8. Give one example of reducing bleaching agent.
 9. The removal of stains at the stage of grey inspection is known as _____.
 10. The main ingredient used in acid steeping is _____.
- (b)** Write an essay on scouring of coloured woven goods with associated precautionary measures. **04**
- Q.2 (a)** Depict the complete process of enzymatic desizing of cotton with advantages and disadvantages involved. **07**
- (b)** Explain the role of 'surface active agent' and 'sequestering agent' in scouring of cotton fabrics. **07**
- OR**
- (b)** Explain 'stitching' and 'shearing and cropping' operations in detail. **07**
- Q.3** Enumerate the application process of Sodium chlorite bleaching with the associated problems and their remedies. **14**
- OR**
- Q.3** Describe with relevant data the catalyzed decomposition of hydrogen peroxide and the use of stabilizers in bleach bath. **14**
- Q.4 (a)** Give the techno-physical criteria involved in Gas singeing with neat sketch of the machine. **07**
- (b)** Write a detailed note on "Souring". **07**
- OR**
- Q.4** Enlist different types of continuous bleaching ranges. Describe the working of 'Harish Contibleach range' with neat diagram. **14**
- Q.5 (a)** Elaborately describe the techno-chemical aspects involved in use of Bleaching powder for chemicking. **07**
- (b)** Depict 'Rot steeping' and 'Acid steeping' process of desizing. **07**
- OR**
- Q.5 (a)** Figure out Tight and Slack Rope washing machines with their construction and working in detail. **07**
- (b)** Give the detailed classification of FBA. **07**
