

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.E. Sem-III(Textile Production)Examination December 2009****Subject code: 132803****Subject Name: Scouring & Bleaching -I****Date: 23 / 12 /2009****Time: 11.00 am – 1.30 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) Enlist different types of scouring processes. Describe with neat diagram, the scouring process of cotton fabric in pressure kier. **07**  
(b) What is singeing process? Describe with neat diagram, the working of roller singeing & plate singeing machines. **07**
- Q.2** (a) Describe the scouring of coloured woven fabrics. **07**  
(b) Give detailed classification of desizing methods. Explain oxidative desizing methods in brief. **07**
- OR**
- (b) What are Enzymes? Explain enzymatic desizing in detail with lock & key mechanism. **07**
- Q.3** (a) Explain the functions of caustic soda, soda ash and sodium silicate in scouring bath. **07**  
(b) Explain the function of surface active agents, solvents and chelating agents in scouring bath. **07**
- OR**
- Q.3** (a) Explain in detail with neat diagram the working of J-Box machine. **07**  
(b) Explain the effect of various factors that influence the hydrogen peroxide bleaching. **07**
- Q.4** (a) Describe in brief the object of oxidative treatments. **05**  
(b) Describe historical and technological aspects of bleaching powder. **03**  
(c) Describe chemicking in Jigger. **06**
- OR**
- Q.4** (a) Describe different types of washing machines in detail with neat diagram. **07**  
(b) Explain Vaporloc system for continues scouring & bleaching process with neat diagram. **07**
- Q.5** Explain in detail, the effect of pH on the stability of sodium hypochlorite **14**
- OR**
- Q.5** (a) Explain in detail about shearing & cropping process. **07**  
(b) Explain grey inspection & stitching. **07**

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