

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-III Examination May 2012****Subject code: 132803****Subject Name: Scouring and Bleaching-I****Date: 10/05/2012****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) What is Desizing? Explain 'Enzymatic Desizing' process in detail. **07**
(b) What is singeing? Describe with neat diagram the most conventional method of singeing. **07**

- Q.2** (a) Enlist various ingredients used in scouring. Describe with proper illustration the functions of caustic soda and surface active agents in scouring process. **07**
(b) Describe the significance of OBA . State characteristic features of it. **07**

OR

- (b) Discuss various technical aspects of sodium hypochlorite in context to stability and pH. **07**

- Q.3** (a) Discuss the wet processing step "Souring" in detail. **07**
(b) Describe with neat diagram and salient features, the working of J-box. **07**

OR

- Q.3** (a) Describe the scouring of coloured woven cotton fabric. **07**
(b) Discuss in detail the bleaching process with sodium chlorite. **07**

- Q.4** (a) Discuss in detail the mechanism and application of physical bleaching agents. **07**
(b) Give a critical review on bleaching of cotton fabric with hydrogen peroxide. **07**

OR

- Q.4** (a) Explain oxidative desizing in detail. **07**
(b) Describe the natural impurities found in cotton. **07**

- Q.5** (a) State the relative merits and demerits of sodium hypochlorite and hydrogen peroxide bleaching. **07**
(b) Explain solvent scouring in detail. **07**

OR

- Q.5** (a) Describe with neat diagram the working of 'Harish Conibleach' range. **07**
(b) Discuss acid desizing in detail. **07**
