

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2132904****Date: 30-12-2014****Subject Name: Textile Processing - 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) Discuss the importance of processing in textile department. Which are the different types of impurities present in Grey Fabric? Classify them. Give the process route of processing for: **07**
 i) Premium quality white formal shirt ii) Ladies Dress Material
- (b) What is Singeing? Discuss the need of singeing. Describe in detail the process of Gas Singeing. **07**
- Q.2** (a) Explain following terms with respect to dyeing department. Establish relationship among them with an example. **07**
 i) M.L.R ii) Shade Percentage
 iii) Concentration of a Dye Bath iv) Exhaustion of dye bath
- (b) Explain why desizing is necessary. Classify the different methods of desizing process. Describe the method of desizing which is most commonly used in the industry. **07**
- OR**
- (b) Discuss the need of scouring. Describe the process of Scouring of cotton fabrics using pressure kier method. **07**
- Q.3** (a) Write short notes on: **07**
 i) Shearing Process ii) Objectives of Grey Folding Department
- (b) Discuss Sodium Hypochlorite bleaching in relation to self decomposition, storage conditions and process parameters. **07**
- OR**
- Q.3** (a) Justify the significance of J-box in scouring of cellulosic fibres and their blends with the help of proper sketch and process sequence and parameters. **07**
- (b) Discuss Hydrogen Peroxide bleaching in relation to its recipe and process conditions. **07**
- Q.4** (a) Discuss, with neat sketch and principle, Jigger Dyeing Machine with its positive and negative aspects. **07**
- (b) Describe Stepwise dyeing of Reactive dyes. **07**
- OR**
- Q.4** (a) What is HTHP method for polyester dyeing? Describe the process of dyeing polyester fabrics in a Jet Dyeing Machine. **07**
- (b) Describe Step wise dyeing of Vat dyes. **07**
- Q.5** (a) Define Dyeing, Dyes and Pigments. Classify the Coloring matter. Write the objectives of dyeing department. **07**
- (b) Explain important factors and precautions in package dyeing and describe any one package dyeing machine. **07**
- OR**
- Q.5** (a) Write shorts notes: **07**
 i) Importance of wetting and surface tension in dyeing ii) Exhausting Agents
- (b) Describe stepwise dyeing of P/C blend fabric. **07**
