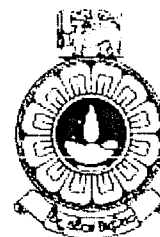


THE OPEN UNIVERSITY OF SRI LANKA

BACHELOR OF INDUSTRIAL STUDIES

FINAL EXAMINATION - 2005/2006



TTX4233 QUALITY ASSURANCE FOR TEXTILE AND CLOTHING

DURATION - THREE HOURS

DATE: 28 March 2006

TIME: 0930 - 1230 Hours

Total Number of Questions = ⁰⁹~~10~~ Number of Questions to be answered = 06

Answer Question 1, which is compulsory and additional five (05) questions.

Question 1 carries twenty-five (25) marks and Questions 2 to 10 carry fifteen (15) marks each.

Compulsory Question

01. a. Why is it important to maintain standard conditions when testing of textile materials? (02 marks)
- b. What are the standard conditions used in Sri Lankan textile laboratories? (02 marks)
- c. What are the costs of quality according to the PAF model? (02 marks)
- d. List four cutting process faults. (02 marks)
- e. Briefly explain the factors that are to be considered in grading fabrics? (02 marks)
- f. Name three widely used methods for measuring tensile strength of a fabric. (02 marks)
- g. Briefly describe three categories of seam failures. (02 marks)

- h. Compare and contrast between "crease recovery" and "crease resistance". (02 marks)
- i. Define "air permeability" and "air resistance" of a fabric. (02 marks)
- j. Write two end uses of fabrics where a higher degree of water absorption is needed and two end uses of fabrics, which require high water repellence property. (03 marks)
- k. List five faults that could occur during the sewing process. (02 marks)
- l. Give an example of adverse affect of hygral expansion. (02 marks)

Answer any five questions from the following eight questions

- 02. The word "quality" is a widely used term in the present society with different meanings. How can the term quality explained in the in following situations.
 - a. For a customer who goes to buy a shirt.
 - b. An Apparel manufacturer, who is manufacturing skirts. (15 marks)

- 03. The modern concept of 'Total Quality Management (TQM) evolved from the early concept of quality inspection. Discuss the evolution of the TQM, starting with quality inspection, describing the steps of evolution of TQM. Illustrate your answer with examples. (15 marks)

- 04. a. Describe the eight quality management principles, based on which ISO 9000: 2000 revision was done. (07 Marks)
- b. Discuss the importance of implementing a good quality management system in Apparel Industry in the present context. (08 Marks)

05. a. Discuss the various aspects, which influence the quality of a garment.
(07 Marks)
- b. Garment quality assurance consists of two processes: inspection of raw materials and inspection during the manufacturing process. Describe these two processes.
(08 Marks)
06. a. Even if the patterns are made perfectly, faults can happen during marker making. Discuss possible marker making faults that can occur.
(07 Marks)
- b. Sewing defects can arise due to machines, instruments or bad handling. Discuss the possible defects with relevant causes.
(08 Marks)
07. a. Explain why shrinkage takes place in different places within the same fabric roll.
(08 Marks)
- b. Describe as to why the dimensional change of garment or fabrics is one of the major quality problems in the garment industry.
(07 Marks)
08. a. Briefly describe the four aspects that influence the fabric handle properties and discuss the importance of these aspects with relevant examples.
(06 marks)
- b. Describe five important properties of yarns and explain why they are important in the textile and garment industry. Illustrate your answer with examples.
(09 marks)
09. a. Discuss the factors that determine the quality of cotton fibres. (07 marks)
- b. Describe how the effective length of cotton fibre sample is estimated.
(08 marks)