THE OPEN UNIVERSITY OF SRI LANKA

CERTIFICATE IN INDUTRIAL STUDIES

FINAL EXAMINATION - 2007/2008

TTI2634 APPAREL TECHNOLOGY

DURATION – THREE HOURS

DATE: 30TH April 2008 TIME: 0930-1230 HOURS

Total Number of questions =08 Number of questions to be answered = 06
Answer Question 1, which is compulsory and additional five (5) questions.
Question 1 carries twenty-five (25) marks and questions 02 to 09carry fifteen marks each.

(1) (a) What are the three main items required to construct patterns?

(b) How do you take the body rise measurement from a person?

(c) What are the required measurements to draft patterns for a ladies skirt?

(d) What is marker efficiency?

(e) What are the three main methods used to remove stains from grey fabrics?

(f) Why do we desize fabrics?

(g) Write three objectives of garment pressing?

(h) The managers in an organization can generally be divided into three categories. What are they?

(i) State three functions of a trade union.

(j) The cost of quality can be divided into three major categories. What are they?

(2) (a) Define the term "seam" according to the British standard. (3 marks)

(b) Describe the construction stages of the following seams with the aid of diagrams.

(i) French seam

(ii) Welt seam

(iii) Edge stitches seam

(iv) Enclosed seam (12 marks)

(3) (a) Explain the factors affecting lay planning. (3 marks)

(b) You are given the following contract of garments. Determine the most economical way of cutting the order.

Sizes	S	M	L	XL	XXL
Quantity	72	48	72	48	48

The maximum allowed depth of the lay with this fabric is 24 plies.
Maximum of 4 sizes can be included in one marker. (12 marks)

(4) (a) Define the term "Standard Minute Value (SMV)" for a particular sewing operation. (3 marks)

(b) Following table gives you observed time and observed rating for certain operations. Calculate the Basic times for each operation, if the standard rating is 100. (12 marks)

Element	**Observed Rating**	**Observed Time (minutes)**
Sort out parts	80	0.20
Sew centre back seam	100	1.05
Sew first under arm seam	100	0.63
Sew second under arm seam	110	0.60
Sew first side seam	90	0.75
Sew second side seam	110	0.70

(5) (a) Why is the "line balancing" important in the garment industry?
(3 marks)

(b) A production line is scheduled to be produced 4000 garments per week.(8 hours, 5 days per week)
A breakdown of operations is given below.

Machine	Operation	SMV per Garment
Lock stitch	Sew 4 darts	0.75
Lock stitch	Sew pleats panels	1.2
Over lock	Over lock edges of placket	0.55
Lock stitch	Sew zip and back seam	1.6
Lock stitch	Make up	0.8
Lock stitch	Tape twist	1.6
Lock stitch	Attach waist band	0.50
Over lock	Over lock waist band	0.70
Lock stitch	Bag out waist band	0.85
Button sew machine	Button sew	0.2
Button hole machine	Button hole	0.3
Blind stitch	Blind stitch	0.45

(i) Calculate the actual number of operations needed to balance the line. (10 marks)

(ii) Calculate the balancing loss for the line. (2 marks)

(6) (a) Define the following yarn count systems (6 marks)

(i) Tex

(ii) Metric

(b) The ticket number given on a sewing thread package is 100. It was found that this thread was made of 2 plies. What is the count of a single ply?

(i) In metric (Nm)

(ii) In Tex (9 marks)

(7) Write descriptive notes on followings.

(a) Material Handling in sewing room (5 marks)

(b) Sewing room production systems (5 marks)

(c) Cutting equipments (5 marks)

(8) List and briefly discuss the total management functions.

(15 marks)

(9) (a) What are the purposes of the performance evaluation?

(8 marks)

(b) Briefly discuss the errors associated with the Evaluation.

(7 marks)