025

THE OPEN UNIVERSITY OF SRI LANKA

DIPLOMA IN INDUSTRIAL STUDIES/TECHNOLOGY

FINAL EXAMINATION - 2005/2006

TTI3235/TTD2212- APPAREL PRODUCTION

DURATION – THREE HOURS

DATE: 27th March 2006 TIME:0930 - 1230 HOURS

Total Number of questions =09 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.

(1) (a) Write four (4) major categories of fabric characteristics that interest the apparel manufacturer.

(b) What are the two main methods of constructing patterns?

(c) What are the measurements required to construct patterns for a gent's trouser?

(d) How do you calculate marker efficiency?

(e) Write two (2) disadvantages of carbon duplication of markers.

(f) Define the term "stitch" according to British standard.

(g) What is the function of the presser foot in a sewing machine?

(h) What are the two major functions of garment packing?

(i) Write two reasons for seam puckering?

(2) The process of product development include four major processes such as,

(j) Origin of style

(ii) The development of samples

(iii) The refinement of business objectives

(iv) The attainment of commercial products

Briefly explain the different functions done under each process.

(3) "The industry has paid great attention to marker planning because when the cutting room cuts cloths, it spends around half of the company's turn over.

(a) What are the constraints that the work of the marker planner subjects to when preparing marker.

(b) Explain two such constraints.

(4) (a) What is a "marker"?

(c) Explain two methods of marker planning with their advantages and disadvantages.

(5) (a) Explain two requirements that must be fulfilled when cutting fabric parts of the pattern pieces in the marker.

(b) Explain two types of cutting knives used in the garment industry with their applications, advantages and disadvantages.

(6) (a) Explain the advantages of having a proper method study in a sewing room.

(b) What are the sequences of activities involved in the method study?

(c) A time study gives the following data.

Operation	Observed time(minutes)	Observed Rating
Open Bundle	0.95	90
Sew center front seam	0.56	80
Sew center back seam	0.67	85
Sew 1st underarm seam	0.7	80
Sew 2nd underarm seam	0.78	85
Close bundle	0.98	90

Bundle consists of 10 garments.

Relaxation allowance is 12%

Machine attention allowance is 4%

Calculate standard minute value (SMV) for one garment.

(7) (a) Why is it important to balance a sewing line?

(b) A production line includes following operations.

Operation	SMV
Make sleeve	2.55
Close darts and sleeves	5.05
Under press	3.4
Sew on collar	2.25
Sew in sleeve	1.55
Hemming	1.75
Press off	3.25

180 garments are to be made per day.

How many operators would be needed to staff the sewing line?

Assume standard performance and a working day of 450 minutes.

(8) (a) Explain two different types of fabric feeding mechanisms in sewing machines.

(b) Explain the six main steps of the formation of a stitch type 301 (lock stitch) using a rotary hook. (use rough sketches)

(9) Total cost of controlling can be broken down into categories as, prevention cost, appraisal cost and failure cost.

Explain these three types of costs.