

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Textile and Apparel Technology



Study Programme	: Bachelor of Technology Honours in Engineering/ Bachelor of Industrial Studies Honours
Name of the Examination	: Final Examination
Course Code and Title	: TAX4540 Garment Manufacture
Academic Year	: 2021/2022
Date	: 11 th February 2023
Time	: 1330-1630hrs
Duration	: 3 hours

General Instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists of **Eight (8)** questions in **Three (3)** pages.
3. Write down your Index Number in all the pages of answer scripts.
4. Answer the question one (Q1), which is compulsory and five (05) more questions from Q2 to Q8. Question one (Q1) carries 25 marks and questions two (Q2) to eight (Q8) carry fifteen (15) marks each.
5. Answers to each question should commence on a new page. If a question has many parts, all the parts should be answered in the chronological order under the same question.
6. Write down the answered question numbers in the answer book.
7. Answers should be in clear hand writing.
8. Do not use red colour pens to write the answers.

Compulsory Question

- (Q1) (a) Give three (03) packing materials commonly used in the garment industry. (03 marks)
- (b) Provide the names along with symbols of five (05) international care labelling codes used for textiles. (05 marks)
- (c) Name four (04) traditional printing techniques, which can be used for garment printing. (04 marks)
- (d) Write down three (03) pressing equipment other than irons and steam presses used for garment pressing. (03 marks)
- (e) Name three (03) semi-automated sewing machines, which are widely used in garment manufacturing process. (03 marks)
- (f) Mention four (04) quality control techniques, which can be employed to control the quality in the sewing departments. (04 marks)
- (g) Give three (03) bladeless cutting equipment, which can be used to cut single plies in the garment industry. (03 marks)

Answer any five (05) questions from the following seven (07) questions

- (Q2) (a) Describe three (03) commonly used bundling techniques of cut fabric panels in the garment manufacturing process. To explain these techniques you should use suitable examples. (06 marks)
- (b) Mention the most commonly used fabric package type in the garment industry. Discuss the advantages of this package type. (04 marks)
- (c) Write a short note on the factors, you should consider when choosing an appropriate cutting equipment for fabric cutting. (05 marks)
- (Q3) (a) Discuss how the application of incorrect ply tension during fabric spreading process affects the quality of cut fabric panels. (04 marks)
- (b) Explain the technical features of the below given fabric spreading machines.
- i) Simple fabric spreading machines
 - ii) Advanced fabric spreading machines
- (06 marks)

- (c) Discuss the advantages and the disadvantages of the "Die cutting technique", which is used for cutting fabric panels. (05 marks)
- (Q4) Providing necessary details, describe the operational principles of the below given production systems used in garment manufacture.
- i) Straight line production system (05 marks)
 - ii) Progressive bundle system (04 marks)
 - iii) Unit production system (06 marks)
- (Q5) Underarm seams of shirts can be constructed by using below given construction methods. Discuss the cost and the quality of each construction method.
- i) Plain seam with a single needle lock stitch without overlocking
 - ii) Plain seam with a single needle lock stitch with three thread overlocking
 - iii) Plain seam with a single needle chain stitch with three thread overlocking
 - iv) Stitching with five thread overlock stitch
 - v) Constructing the seam with a lapped seam
- (3x5 =15 marks)
- (Q6) (a) Prepare an operational breakdown for assembling a shirt, when the completed front panels, back panel, collar, and sleeves are provided. Include the buttonholing and button attaching processes in the operational break down as well. (09 marks)
- (b) Describe the preparation of the one-piece fused collar for a short sleeve shirt. You should explain the process with the help of diagrams for each operation. The process should be completed in six operations. (06 marks)
- (Q7) (a) Giving possible reasons, write a comprehensive note on the "Fusing problems". (06 marks)
- (b) Discuss the advantages of enzyme washing over the pumice stone washing of garments. (09 marks)
- (Q8) (a) Giving suitable stain removers, discuss how the different types of stains be removed from the garments made of various fibre types. (09 marks)
- (b) Briefly discuss the concept of "Merchandising packing" in relation to garments. (06 marks)

