

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



Study Programme	: Bachelor of Science Honours in Engineering Bachelor of Industrial Studies Honours
Name of the Examination	: Final Examination
Course Code and Title	: TAX3331 Garment Analysis and Sewing Machinery
Academic Year	: 2024/25
Date	: 30 th January 2026
Time	: 0930-1230h
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. Answer for each question should commence from a new page.
6. Write down the answered question numbers in the answer book.
7. Answers should be in clear handwriting.
8. Do not use red colour pens to write the answers
9. This is a Closed Book Test (CBT).

Compulsory Question

Question 01

- a. State three (03) sources that can be used to get information for market research.
(03 marks)
- b. Write the two (02) main functions of clothing.
(04 marks)
- c. Define the following terms relevant to seam dimensions.
(04 marks)
 - i. Seam allowance
 - ii. Seam depth
- d. State three (03) seam defects that can be found in garments.
(03 marks)
- e. List three (03) different types of threads participating in stitch formation. (03 marks)
- f. State three (03) semi-automated sewing machines used in the garment industry.
(03 marks)

- g. Write the two (02) main types of needlepoint. (02 marks)
- h. Name three (03) automation devices used in the garment industry. (03 marks)

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

Question 02

- a. Explain the "Augmented Visual Inspection" used in garment analysis. (03 marks)
- b. Distinguish between the following criteria included in the product positioning strategy. (12 marks)
 - i Functional and aesthetic garments
 - ii Durable and disposable garments
 - iii Basic and fashion garments

Question 03

- a. With the aid of suitable diagrams, write down the construction steps of the Edge-stitched seam and state its applications in garments. (07 marks)
- b. Explain four (04) seam neatening methods employed in garments. (08 marks)

Question 04

- a. Explain the stitch formation, appearance and applications of the stitch type 402. (10 marks)
- b. Describe the principle of lock stitch formation. (05 marks)

Question 05

- a. With the aid of clear diagrams, briefly explain the four (04) steps in the formation of stitch type 401 by oscillatory looper. (15 marks)

Question 06

- a. Sewing machines can be classified according to different bed types. Explain three (03) of them with their applications. (09 marks)
- b. Describe the functions of the following parts of the lock stitch machine. (06 marks)
 - i Tensioning devices
 - ii Backtack lever
 - iii Feed dog

Question 07

- a. With the aid of suitable diagrams, describe the following feeding systems. (12 marks)
- i Differential feeding system
 - ii Puller feed system
- b. State the three (03) types of positioning attachments. (03 marks)

Question 08

- a. Needle heating damage is one of the fabric defects that occur along the stitch line. Describe it, including the causes and preventive actions. (07 marks)
- b. Explain the following factors that contribute to seam puckering. (08 marks)
- i Seam Pucker due to differential fabric stretch
 - ii Seam Pucker due to mismatched patterns

All Rights Reserved