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	: **TAX3331 Garment Analysis & Sewing Machinery**
Academic Year	: 2021/2022
Date	: 07th 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.

(Q1)   (a) State the main stages of the business of fashion and clothing.   (07 marks)

(b) Write down the two (02) main functions of clothing.   (02 marks)

(c) Define the term "Fashion".   (01 marks)

(d) Quality of seams depends on several factors. State five (05) of them.

(05 marks)

(e) State the two (02) stitching classes under Federal Standard of seam

classification.   (02 marks)

(f) Give two (02) applications of stitch type 304.   (02 marks)

(g) Write down four (04) benefits of using sewing machine attachments.

(04 marks)

(h) State two (02) causes for missed stitches.   (02 marks)

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

(Q2)   (a) Describe the four (04) main stages of the process of product development.

(12 marks)

(b) Explain the "Augmented Visual Inspection" method used for the garment

analysis.   (03 marks)

(Q3)   (a) With the aid of suitable diagrams, write down the construction steps of the

welt seam .   (06 marks)

(b) Different methods are used for seam neatening. Explain three (03) of them.

(09 marks)

(Q4)   (a) Write short descriptions on the stitch formation, features and applications

of the stitch types 406 and 512.   (10 marks)

(b) Briefly explain the importance of the thread tension during the stitch

formation process of stitch type 301.   (05 marks)

(Q5)   With the aid of clear diagrams, briefly explain the formation of stitch type

101 by oscillatory looper.   (15 marks)

(Q6) (a) Briefly explain the main functions of following parts of a lock stitch sewing machine. (06 marks)

      (i) Tensioning devices

      (ii) Take up lever

      (iii) Sewing hook

(b) There are several types of semi-automatic sewing machines used in the apparel industry. Write short notes on three (03) of them in all aspects.

(09 marks)

(Q7) (a) With the aid of suitable diagrams, describe the following feeding mechanisms used in sewing machines. (06 marks)

      (i) Drop feed system

      (ii) Compound feed system

(b) Briefly explain the three (03) types of positioning attachments used in sewing machines. (06 marks)

(c) Explain the importance of applying finishes to the needles. (03 marks)

(Q8) (a) "The application of automation devices in sewing machines improves the productivity and quality of the sewing process". Giving suitable examples justify the given statement. (09 marks)

(b) Explain the three (03) main causes for seam puckering mentioned below.

(06 marks)

      (i) Feeding effect

      (ii) Structural effect

      (iii) Thread tension effect