

THE OPEN UNIVERSITY OF SRI LANKA  
DEPARTMENT OF TEXTILE AND APPAREL TECHNOLOGY  
DIPLOMA IN INDUSTRIAL STUDIES  
TTI3239 - GARMENT ANALYSIS AND SEWING MACHINERY  
FINAL EXAMINATION - 2011/2012  
DURATION: THREE (03) HOURS



DATE: 01<sup>st</sup> March 2012.

TIME: 0930 TO 1230 HOURS

Total number of questions = 08

Number of questions to be answered = 06

Answer question one (Q1), which is compulsory and five (05) other questions

Question one (Q1) carries 25 marks and questions two (Q2) to eight (Q8) carry fifteen (15) marks each.

Compulsory Question

- (Q1) (a) Describe the terms "fashion garments" and "staple garments" and give two examples for each of them. (04 marks)
- (b) Write down the importance of using testing standards to perform laboratory tests in clothing industry (03 marks)
- (c) State three (3) methods of seam neatening. (03 marks)
- (d) Briefly explain two (2) methods of joining loops of chain stitch formation. (02 marks)
- (e) Threads participating in stitch formation can have different names. List four (4) of them. (04 marks)
- (f) Describe why chain stitches are widely used in automated and semi-automated sewing machines. (03 marks)
- (g) Chain stitch sewing machines can be equipped with two different types of loopers. Name them. (02 marks)
- (h) Explain reasons for the formation of unbalanced lock stitches. (04 marks)

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

- (Q2) Write a comprehensive note on the "process of product development" of the apparel industry. (You may use a graphical representation to answer the question, but giving the graphical representation is not enough). (15 marks)

- (Q3) Write short notes on the following topics related to seams.
- (a) Factors affecting the seam appearance (05 marks)
  - (b) Seam performance (05 marks)
  - (c) Seam defects (05 marks)
- (Q4) With the aid of clear diagrams, briefly explain the six (06) steps of the stitch formation process of the stitch type 301, when the sewing machine is equipped with a rotory hook. (15 marks)
- (Q5) (a) Briefly explain the similarities and differences of a single needle lock stitch machine and single needle chain stitch machine. (07 marks)
- (b) Compare and contrast the stitch types 301 and 401 in all aspects. (08 marks)
- (Q6) (a) Giving examples, briefly explain why different types of sewing machines are used in garment manufacturing. (07 marks)
- (b) Explain the special features and applications of "Compound feed system" and " Puller feed system" equipped in sewing machines. (08 marks)
- (Q7) Write short notes on any of the following three (03) topics.
- (a) Use of attachments and guides in sewing machines (05 marks)
  - (b) Use of automatic devices in sewing machines (05 marks)
  - (c) Classification of sewing machines (05 marks)
  - (d) Selection of needles for different types of fabrics (05 marks)
- (Q8) (a) Describe the five (05) major types of seam pucker in details. (You may include the reasons for occurring them as well.) (10 marks)
- (b) State how could you minimise/overcome each type of the seam pucker you have mentioned in the part (a) (05 marks)