

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



Study Programme	: Bachelor of Industrial Studies Honours
Name of the Examination	: Final Examination
Course Code and Title	: TTX6265/ TAX6565 Fabric Technology
Academic Year	: 2019/2020
Date	: 25 <sup>th</sup> September 2020
Time	: 1400-1700hrs
Duration	: 3 hours

### General Instructions

1. Read all instructions carefully before answering the questions.
2. Write down your Index Number in all the pages of answer scripts.
3. This question paper consists of **Eight (08)** questions in **three (03)** pages.
4. Answer **five (05)** questions. Do not answer more than five (05) questions.  
Each question carries 20 marks.
5. Answers for 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 on the space provided in the cover page of the answer book.
7. Answers should be in clear handwriting.
8. Do not use red colour pens to write the answers.

- (Q1) (a) Describe the important physical properties, which define the static physical dimensions of fabrics. (08 marks)
- (b) Write a comprehensive note on the durability characteristics of textile fabrics. (06 marks)
- (c) State the three (03) major groups of textile fabrics based on their end uses. Give brief description of each. (06 marks)
- (Q2) (a) Discuss the following style characteristics of textile fabrics which are suitable for clothing. (12 marks)
- i. Fabric hand and style features
  - ii. Colour
  - iii. Structure
- (b) Briefly discuss the comfort properties of textile fabrics suitable for clothing. (08 marks)
- (Q3) (a) Write short notes on the following household textiles. (10 marks)
- i. Fabrics for bed linen and tablecloths
  - ii. Fabrics for interior decoration
- (b) Discuss the use of textile fabrics in medical applications. (10 marks)
- (Q4) (a) With the aid of suitable diagrams, describe the "Crimp height" and "Cloth sett" of warp and weft directions of woven fabrics. (08 marks)
- (b) Explain the behavior of woven fabrics under tension. (06 marks)
- (c) Classify the woven fabrics according to the surface effect. (06 marks)
- (Q5) (a) Compare "Plain woven fabrics" and "Twill woven fabrics" in all aspects. (10 marks)

- (b) Write a comprehensive note on the factors, which must be considered when developing a specification for a woven shirting material. (10 marks)
- (Q6) Write short notes comparing the following properties of woven and knitted fabrics.
- i. Strength (05 marks)
  - ii. Elongation (05 marks)
  - iii. Abrasion (05 marks)
  - iv. Dimensional stability (05 marks)
- (Q7) (a) Draw a suitable classification for weft knitted fabrics. (04 marks)
- (b) With the help of suitable diagrams, describe the "Rib fabric designs with Tuck and Miss stitches". (08 marks)
- (c) Write a short note on "Designing of knitted fabrics with Racking and Transfer Stitches". (08 marks)
- (Q8) With the help of suitable diagrams, briefly discuss the followings in relation to knitted fabrics/structures.
- i. Warp knitted plated fabrics (05 marks)
  - ii. Velour and Velvet structures (05 marks)
  - iii. Warp plush and pile fabrics (05 marks)
  - iv. Net structures (05 marks)

