

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 : TAX4571 Textile Colouration & Finishing
Academic Year : 2024/25
Date : 21st February 2026
Time : 1330-1630h
Duration : 3 hours

General instructions

1. Read all the 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 numbers of the answered question in the space provided on the first page of 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. Write down four (04) factors that determine the selection of a dyeing process. (04 marks)
- b. Define the term "Dyeing Assistants" as used in textile dyeing practice. (02 marks)
- c. State three (03) types of Sulphur dyes. (03 marks)
- d. List three (03) long liquor dyeing machines used in textile dyeing. (03 marks)
- e. State three (03) common ingredients used in a printing paste. (03 marks)
- f. Write down the five (05) steps involved in a general textile printing process.

- (05 marks)
- g. State the three (03) factors affecting on the selection of a fabric finishing method. (03 marks)
- h. Define the term "Colour Fastness" of a textile dye. (02 marks)

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

Question 02

- a. Discuss the reasons for the limited application of natural dyes in the modern textile industry. (10 marks)
- b. Write down a short note on the functions of a "Carrier" used with Disperse dyes. (05 marks)

Question 03

- a. With the aid of a suitable diagram, describe the operational principal of "Loose stock dyeing machine". (10 marks)
- b. Briefly explain the general properties and characteristics of Reactive Dyes. (05 marks)

Question 04

- a. Explain the savings that can be achieved by employing short liquor dyeing machines in the textile industry. (12 marks)
- b. State the three (03) types of Acid Dyes classified according to the acidity of the dye bath. (03 marks)

Question 05

- a. Write down a comprehensive note on block printing method. (09 marks)
- b. Briefly describe "Gum Tracaganth", which is used as a thickener. (06 marks)

Question 06

- a. Write down short notes on the following printing styles: (15 marks)
- i Embossed style
 - ii Crimp style
 - iii Flock printing style

Question 07

- a. Describe the calendering process in textile mechanical finishing and list four (04) types of calenders used in the industry. (05 marks)
- b. Describe the heat-setting process for synthetic fabrics. (10 marks)

Question 08

- a. Write down a descriptive note on water-proof finishes and water-proofed textiles. (09 marks)
- b. Briefly explain "colour fastness of Disperse dyes to gaseous impurities". (06 marks)

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