



THE OPEN UNIVERSITY OF SRI LANKA

DEPARTMENT OF TEXTILE AND APPAREL TECHNOLOGY

DIPLOMA IN INDUSTRIAL STUDIES / DIPLOMA IN  
TECHNOLOGY

037

FINAL EXAMINATION – 2005/2006  
TTX4234 / TTD2210 TEXTILE COLOURATION & FINISHING

DURATION – THREE HOURS

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DATE: 11<sup>th</sup> March 2006

TIME: 0930 – 1230 Hours

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Total Number of Questions = 09

Number of questions to be answered = 06

Answer the question 1, which is compulsory and five (05) additional questions.  
Question 1 carries twenty five (25) marks and questions 2 to 09 carry fifteen (15) marks each.

**01. Compulsory Question**

- (a) State two (2) methods that are available to dye a cotton fabric using direct dyes.
- (b) Name 3 after treatment processes carried out to improve fastness properties of textile material dyed with direct dyes.
- (c) What are the objectives of doing heat setting for nylon fibres?
- (d) What do you understand by MLR ratio of a dyeing machine?
- (e) Name 5 ingredients of a printing paste.
- (f) What are the advantages of doing transfer printing against other methods of printing?
- (g) Why it is necessary to use binders in pigment printing?
- (h) Name 4 different printing styles.
- (i) What is an emulsion thickener?
- (j) What is the function of a DOCTOR blade in roller printing?

- 02.**
- a) What are the basic characteristics a dyestuff should possess to dye textile materials with exhaust method?
  - b) Write at least 5 functions of dyeing assistants during dyeing of textile material.

03. Explain how you would carry out the following process:
- Dyeing of yarns.
  - Dyeing of loose fibres.
  - Dyeing of fabric in a winch.
04. Write short notes on the following:
- Mordants
  - Leveling agents
  - Carriers
  - Leuco compound
05. a) Describe the steps involved in the production of coupling (Azoic) dyes on the fabric.  
b) What are the advantages of using reactive dyes to dye cotton material?
06. What do you understand by
- Thermo-soling,
  - Carrier dyeing and
  - High Temperature dyeing with respect to polyester substrate?
- 07 List out the constituents in any printing paste of your choice and explain the action of each constituent.
08. Explain how you obtain the following finishes in textile materials:
- Water repellent finish.
  - Water proof finish.
  - Flame retardant finish.
09. Describe the methods used for drying of textile material.