## THE OPEN UNIVERSITY OF SRI LANKA

## BACHELOR IN TECHNOLOGY/ BACHELOR IN INDUSTRIAL STUDIES



## TTX 6231 ADVANCED COLOURATION TECHNOLOGY

FINAL EXAMINATION- 2007/2008

043

**DURATION- THREE HOURS** 

Date: 21st April 2008

Time: 0930-1230 Hrs

Total number of questions in this paper is 09. Total number of questions to be answered is 06. Question number one is compulsory and carries 25 marks. All other questions carry fifteen(15) marks each.

01. Compulsory question

(Each part carries 2.5 marks amounting to a total of 25 marks)

- (1) Name two fibre types that can be dyed with basic dyes.
- (2) Classify acid dyes into three classes according to application.
- What are the physical and chemical characteristics of dye molecule that determine the substantivity?.
- (4) Name the main operations involved in vat dyeing.
- (5) Explain the term mordant dyeing.
- (6) Expain the term "one bath process" in reference to dyeing fibre mixtures.
- (7) Why polyesters are not attractive to water soluble dyes?
- (8) In your own words explain the term "colour fastness".
- (9) Name two absorbants that can be used as coatings in thin layer chromatography.
- (10) Mention the meaning of the following term s associated with colour.

  (a) Hue (b) Saturation

- 02. Discuss the properties and practical application of basic dyes.
- 03. Discuss application of vat dyes.
- 04. How do you understand the term "azo dye" Explain the azo dyeing process.
- **05.** Describe in detail how you would practically apply reactive dyes to textile materials.
- **06.** Write an essay on dyeing polyamides.
- **07.** Explain the polyester dyeing process in detail.
- **08.** Explain how the eye perceives colour.
- **09.** Discuss how the dyeing properties are affected by the physical properties of fibre.