

THE OPEN UNIVERSITY OF SRI LANKA

BACHELOR OF TECHNOLOGY/ BACHELOR OF INDUSTRIAL STUDIES.



FINAL EXAMINATION 2012/2013

TTX6231 – ADVANCE COLORATION

DURATION – THREE HOURS

DATE: 14.08-2013

TIME: 9.30-12.30

Please write your Registration number on the dotted line given below:

Reg. No.:

Answer Five (05) questions including the Question 1, which is compulsory.

Total number of questions = 7; number of pages = 6

PART I

1. Compulsory Question

(i) The Basic Dyes are also named as “Cationic Dyes”. Explain. (03 Marks)

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(ii) Give two reasons for the popularity of Reactive Dyes. (04 Marks)

(a)
.....
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.....
.....

(b) -----

(iii) What are the general properties of Basic Dyes? (03 Marks)

- a.-----

- b.-----
- c.-----

(iv) Providing examples show how the structural characteristics of fibers determine the substantivity of Direct Dyes? (06 Marks)

(v) Describe how Acid Dyes are classified into three classes according to their application? (04 Marks)

(vi) State two types of Dyeing Assistants used in Acid Dyeing and describe the purposes of their application?

(03 Marks)

a. -----

(03 Marks)

b. -----

(vii) Explain the functions of the following factors in Direct Dyeing?

(a) Temperature:

(03 Marks)

(b) Liquor ratio:

(03 Marks)

(vii) Briefly explain the general properties of Vat Dyes?

(04 Marks)

(viii) Give a brief account of the properties of Azoic Dyes?

(04 Marks)

PART II

Answer only four (04) Questions from the PART II.

2. (i) Explain why de-sizing has to be done before dyeing gray fabrics?
(ii) How will you dye cotton fabric with Direct Dyes?
(iii) What is the function of Common Salt in dyeing of cotton fabric?

(15 Marks)

3. (i) Name three reactive groups found in Reactive Dyes?
(ii) State briefly the exhaust method of dyeing with Reactive Dyes?
(iii) Write a short note on the fastness properties of Reactive Dyes compared to Direct Dyes?

(15 Marks)

4. (i) What are the chemical reactions involved in Vat dyeing?
(ii) Briefly describe the method of Vat dyeing?
(iii) Differentiate between Anthraquinone and Indigo Vat dyes?

(15 Marks)

5. (i) Why polyamides are not very attractive to water soluble dyes?
(ii) Briefly explain the term "Carrier dyeing".
(iii) Mention four fastness properties that you should look in a swimwear?

(15 Marks)

6. (i) Explain how the physical structure of a fibre influences dyeability?
(ii) Explain the term "Union dyeing".
(iii) Briefly explain the three types of mordant dyes?

(15 Marks)

7. Write short notes on three (3) of the following?

- (i) Scouring
(ii) Back tanning.
(iii) CIE System of color
(iv) Orientation and crystallinity

(15 Marks)