



UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER

PROGRAMME : BACHELOR OF SCIENCE IN TEXTILES,
APPAREL DESIGN AND MANAGEMENT YEAR
IV

COURSE CODE : TAD405

TITLE OF PAPER : TEXTILE DYEING AND PRINTING

TIME ALLOWED : TWO (2) HOURS

INSTRUCTIONS : ANSWER QUESTION ONE (1) AND
ANY OTHER TWO (2) QUESTIONS

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY
THE CHIEF INVIGILATOR**

QUESTION 1 COMPULSORY

- a) Using a simple design motif of your choice, sketch it to illustrate the following on a 15cm X 15cm field and a 2cm X 2cm unit base
- i) Bi-directional motifs
 - ii) $\frac{3}{4}$ drop repeat motifs
 - iii) Multi-dimensional motifs
 - iv) Brick repeat motifs
- (12 Marks)**

- b) Compare the general colourfastness of the following types of dyes. Tabulate your answer as follows:

Type of dye	Washing Fastness	Light Fastness	Perspiration Fastness	Rubbing Fastness
Disperse				
Acid				
Azoic				

(12 Marks)

- c) Discuss **five (5)** points on how ink jet printing has revolutionised textile printing.
- (10 Marks)**
- d) Give any **three (3)** after-treatments that would be necessary after dyeing or printing textiles.
- (6 Marks)**

[TOTAL MARKS = 40]

QUESTION 2

- a) Describe the dyeing process involved in each of the following types of dyes. Justify your answer.
- i) Reactive dyes
 - ii) Sulphur dyes
 - iii) Vat dyes
- (12 Marks)**
- b) Suggest and describe **three (3)** main classes of printing methods that can be used to apply designs onto textiles.
- (9 Marks)**
- c) Name, describe and sketch **three (3)** ways in which symmetry in motifs and patterns can be achieved.
- (9 Marks)**

[TOTAL MARKS = 30]

TAD405 (M)

QUESTION 3

- a) Draw clear distinctions between aqueous and solvent dye extraction method. (12 Marks)
- b) Describe and differentiate between the following styles of printing that can be used to apply designs onto textiles.
- i) Screen printing
 - ii) Block printing
 - iii) Stencil printing
 - iv) Roller printing
- (4 X 3 = 12 Marks)
- c) Name any **three (3)** impurities that must be removed before colour application, give **one (1)** appropriate method to remove each. (6 Marks)

[TOTAL MARKS = 30]**QUESTION 4**

- a) Environmental conscious consumers are now opting to pay more for naturally dyed apparel as opposed to apparel dyed with synthetic dyes. State **six (6)** challenges and **six (6)** advantages of natural dyes (12 Marks)
- b) List **two (2)** ingredients of a printing paste. State **one (1)** function for each. (8 Marks)
- c) Classify and give **one (1)** inspiration behind each of the designs below.



i)



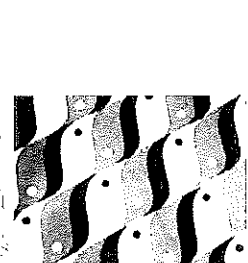
ii)



iii)



iv)



v)

(10 Marks)**[TOTAL MARKS = 30]**