

1801/104
TEXTILE MATERIAL KNOWLEDGE
AND FABRIC COLOURATION THEORY
Oct./Nov. 2018
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN FASHION DESIGN AND GARMENT
MAKING TECHNOLOGY

MODULE I

TEXTILE MATERIAL KNOWLEDGE AND FABRIC COLOURATION THEORY

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SIX questions.

Answer question ONE which is compulsory and any other FOUR questions in the answer booklet provided.

Candidates should answer all questions in English.

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

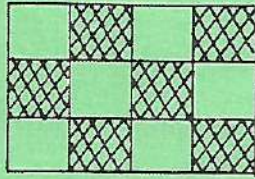
Answer question 1 (compulsory) and any other **FOUR** questions.

1. (a) Outline **four** tie-and-dye finishing procedures. (4 marks)
- (b) Identify the colours that complement each of the following on a colour wheel:
- (i) Red; (1 mark)
 - (ii) Red-purple; (1 mark)
 - (iii) Purple. (1 mark)
- (c) Explain **three** safety precautions to observe during printing. (6 marks)
- (d) (i) Highlight **four** factors that influence the choice of dyes. (4 marks)
- (ii) Outline **three** conditions for achieving good dyeing results. (3 marks)
2. (a) Highlight **six** disadvantages of cotton fabrics. (6 marks)
- (b) (i) Outline **two** limitations and **two** benefits of using hot water during laundry. (4 marks)
- (ii) Identify **four** water extraction methods in fabrics during laundry. (4 marks)
- (c) Explain each of the following terms in textile fibres:
- (i) flexibility; (1 $\frac{1}{2}$ marks)
 - (ii) lustre; (1 $\frac{1}{2}$ marks)
 - (iii) hydrophobia; (1 $\frac{1}{2}$ marks)
 - (iv) elasticity. (1 $\frac{1}{2}$ marks)
3. (a) Highlight **six** disadvantages of linen fabric. (6 marks)
- (b) Describe the burning test for each of the following fabrics:
- (i) acetate; (4 marks)
 - (ii) silk. (4 marks)
- (c) (i) Explain the term 'tufted fabric'. (2 marks)
- (ii) Identify **four** uses of tufted fabrics. (4 marks)

4. (a) Explain the following processes in linen yarn production:
- (i) ripping; (2 marks)
 - (ii) well hackling; (2 marks)
 - (iii) scutching. (2 marks)
- (b) Explain the role of each of the following equipment in a fibre identification test:
- (i) microscope; (2 marks)
 - (ii) burner. (2 marks)
- (c) Explain **three** factors that influence the drapeability of a fabric. (6 marks)
- (d) Identify **four** types of filament threads. (4 marks)
5. (a) State **two** effects of the following finishes, citing the fabric involved in each case:
- (i) beetling; (3 marks)
 - (ii) fulling; (3 marks)
 - (iii) mercerization. (3 marks)
- (b) Illustrate the symbols for each of the following care label information:
- (i) dry flat; (1 mark)
 - (ii) drip dry; (1 mark)
 - (iii) Use chlorine bleach; (1 mark)
 - (iv) drycleanable in all solvents; (1 mark)
 - (v) do not wash. (1 mark)
- (c) (i) Illustrate the longitudinal and the cross-sectional microscopic views of linen fibres. (4 marks)
- (ii) Describe the longitudinal and cross-sectional microscopic appearance of a cotton fibre. (2 marks)

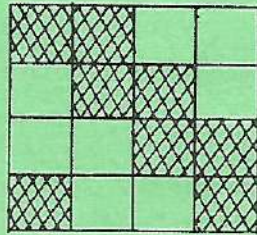
✓ 6. (a) Identify the following woven fabric structures, citing the designation for each.

(i)



(2 marks)

(ii)



(3 marks)

(b) Explain **six** cotton fabric preparatory stages before processing.

(12 marks)

(c) State **three** ways of identifying a printed fabric.

(3 marks)

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