

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.**

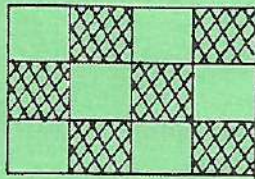
Answer question 1 (compulsory) and any other **FOUR** questions.

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)

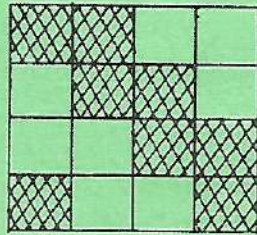
✓ 6. (a) Identify the following woven fabric structures, citing the designation for each.

(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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