

1801/104
TEXTILE MATERIAL KNOWLEDGE
AND FABRIC COLOURATION THEORY
June/July 2019
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 1 which is **COMPULSORY** and any other **FOUR** questions in the answer booklet provided.*

Maximum marks for each part of a question are as indicated.

Candidates should answer the questions in English.

This paper consists of 4 printed pages.

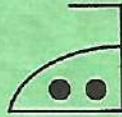
Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. (a) Define the term 'printing'. (2 marks)
- (b) Describe each of the following printed fabric faults:
- (i) bleeding; (1 ½ marks)
- (ii) crocking. (1 ½ marks)
- (c) Explain the following tie-and dye procedures:
- (i) wetting; (2 marks)
- (ii) fixing; (2 marks)
- (iii) dipping. (2 marks)
- (d) (i) Identify **three** sources of natural dyes. (3 marks)
- (ii) Explain **three** objectives of dyeing fabrics. (6 marks)
2. (a) Highlight **six** advantages of nylon fabrics. (6 marks)
- (b) Explain each of the following wool fabric production processes:
- (i) shearing; (2 marks)
- (ii) sorting. (2 marks)
- (iii) scouring. (2 marks)
- (c) State the effect of concentrated sulphuric acid on each of the following types of fibre.
- (i) linen; (1 mark)
- (ii) polyester; (1 mark)
- (iii) nylon. (1 mark)
- (d) (i) With the aid of an illustration, explain the structure of a cotton thread. (3 marks)
- (ii) Identify **two** types of synthetic threads. (2 marks)

3. (a) Identify **five** types of fancy yarns. (5 marks)
- (b) Highlight **five** contributions of yarn crimp in fabrics. (5 marks)
- (c) Describe the burning tests for each of the following fabrics:
- (i) viscose. (3 marks)
- (ii) nylon. (3 marks)
- (d) Outline **four** reasons for plying yarns. (4 marks)
4. (a) (i) Outline **five** characteristics of pile woven fabrics. (5 marks)
- (ii) Highlight **four** end uses of pile fabrics. (4 marks)
- (b) Using diagrams, illustrate each of the following fabric structures:
- (i) $\frac{2}{2}$ right hand twill. (4 marks)
- (ii) $\frac{1}{2}$ plain weave. (3 marks)
- (c) (i) Explain the term 'stain' in fabrics. (2 marks)
- (ii) Cite **two** shortcomings of stains in fabrics. *Blood stain on a handkerchief.* (2 marks)
5. (a) Outline **five** advantages of and **five** disadvantages of acetate fabrics. (10 marks)
- (b) (i) Explain the term 'finish' as used in fabrics. (2 marks)
- (ii) Highlight **four** objectives of finishing fabrics. (4 marks)
- (c) (i) Explain the term 'float' as used in knitted fabrics. (2 marks)
- (ii) State **one** advantage and **one** disadvantage of floats in knitted fabrics. (2 marks)
6. (a) Describe the viscose fibre production process. *40 450 2000* *deposition* *huckling* *blending* *packing* *tray* (10 marks)
- (b) Explain **three** precautions to observe when washing tri-acetate fabrics. (6 marks)
- Do not machine wash.* *Do not use chlorine bleach.* *Can't*

(c) Identify each of the following fabric care label symbols.

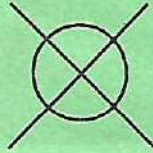
(i)



Iron with hot iron.

(1 mark)

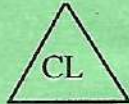
(ii)



Do not machine wash.

(1 mark)

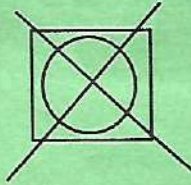
(iii)



Chlorine bleach can be used.

(1 mark)

(iv)



(1 mark)

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