

1801/104

**TEXTILE MATERIAL KNOWLEDGE AND  
FABRIC COLOURATION THEORY**

June/July 2020

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** (compulsory) and any other **FOUR** questions in the answer booklet provided.*

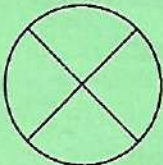
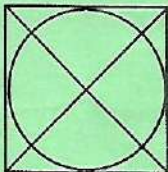
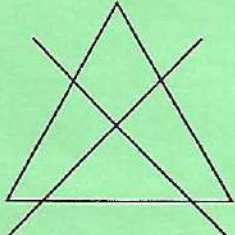
*Maximum marks for each part of a question are as indicated.*

*Candidates should answer the questions in English.*

**This paper consists of 3 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) Explain each of the following colour attributes:
- (i) value; (2 marks)
  - (ii) intensity. (2 marks)
- (b) Outline **two** characteristics of printed fabrics. (2 marks)
- (c) Explain **three** factors to consider when selecting fabric dyes. (6 marks)
- (d) Outline **five** safety precautions to observe when dyeing fabrics. (5 marks)
- (e) Highlight **two** ways of removing wax from the fabric during batik. (3 marks)
2. (a) Describe each of the following cotton yarn production processes:
- (i) combing; (3 marks)
  - (ii) drawing; (3 marks)
  - (iii) ginning. (2 marks)
- (b) Highlight **six** properties of viscose fabrics. (6 marks)
- (c) (i) Explain the term 'weaving'. (2 marks)
- (ii) Illustrate the structure of a  $\frac{2}{3}$  left hand twill. (4 marks)
3. (a) (i) Describe the burning test for an acrylic fabric. (3 marks)
- (ii) Identify **five** uses of acrylics in household furnishing. (5 marks)
- (b) Explain **two** factors which make woollen fabrics warm to wear. (4 marks)
- (c) (i) Outline **five** shortcomings of nylon fabrics. (5 marks)
- (ii) State **three** objectives of stretching nylon fibres during production. (3 marks)
4. (a) Explain the following textile fibre properties, citing **one** advantage of each:
- (i) thermoplasticity; (3 marks)
  - (ii) elasticity. (3 marks)
- (b) Identify **six** household uses of felts. (6 marks)
- (c) Describe each of the following types of fabric finishes:
- (i) delustering; (2 marks)
  - (ii) bacteriostatic; (2 marks)
  - (iii) napping. (2 marks)

- (d) Outline **two** shortcomings of drying cotton articles in the sun. (2 marks)
5. (a) Explain **three** desirable qualities of a fabric suitable for a sleeping gown. (6 marks)
- (b) Describe each of the following weft yarn preparatory processes for weaving. Cite **one** objective of each process:
- (i) winding; (3 marks)
- (ii) steaming. (2 marks)
- (c) Explain the term 'singeing' as used in fabric preparation, citing the objective of this process. (3 marks)
- (d) List **six** uses of linen threads. (6 marks)
6. (a) (i) Describe the life cycle of a silk moth. (5 marks)
- (ii) Highlight **four** factors that make silk fabrics suitable for clothing. (6 marks)
- (b) With the aid of illustrations, describe the microscopic appearance of each of the following fibres:
- (i) viscose; (3 marks)
- (ii) polyester. (3 marks)
- (c) Identify each of the following care label information symbols: (3 marks)
- (i) 
- (ii) 
- (iii) 

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