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1801/104
TEXTILE MATERIAL KNOWLEDGE
AND FABRIC COLOURATION THEORY
Oct./Nov. 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

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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.

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) Illustrate a colour wheel to show the primary and secondary colours. (6 marks)
- (b) Describe each of the following techniques of tie-and-die:
- (i) binding; (2 marks)
- (ii) tritiking. (2 marks)
- (c) Explain **two** objectives of washing fabrics before dyeing. (4 marks)
- (d) Describe each of the following methods of printing:
- (i) discharge; (3 marks)
- (ii) block. (3 marks)
2. (a) Categorize each of the following fibre types either as 'cellulosic' or 'proteinic'.
{Cashmere, Acetate, Silk, Flax, Fleece, Aplaca, Jute, Sisal} (8 marks)
- (b) Describe the feeling test for each of the following fabrics:
- (i) Viscose; (1 mark)
- (ii) Wool. (1 mark)
- (c) (i) Highlight **six** advantages of cotton fabrics. (6 marks)
- (ii) Outline **two** negative effects of sunlight on cotton fabrics. (2 marks)
- (iii) With the aid of an illustration, describe the longitudinal microscopic view of a cotton fibre. (2 marks)
3. (a) (i) Highlight **five** objectives of crimping polyester fibres during production. (5 marks)
- (ii) Explain the meaning of the term 'drawing-out' in polyester fibre production, citing two of its objectives. (4 marks)
- (b) Explain **three** safety precautions to observe when conducting a textile fibre burning test. (6 marks)
- (c) Outline **three** advantages and two disadvantages of satin fabrics. (5 marks)

4. (a) Describe the linen fibre production process. (10 marks)
- (b) Identify **five** end uses of felts. (5 marks)
- (c) Outline **five** limitations of wool fabrics. (5 marks)
5. (a) Highlight **two** objectives of each of the following cotton fabric production processes:
- (i) bleaching; (2 marks)
- (ii) sizing; (2 marks)
- (iii) scouring. (2 marks)
- (b) State **two** benefits of dry cleaning fabrics. (2 marks)
- (c) With the aid of illustrations, identify **four** care label information symbols for ironing. (6 marks)
- (d) Explain the functions of each of the following in a weaving operation.
- (i) Reed. (2 marks)
- (ii) Warp beam. (2 marks)
- (iii) Shuttle. (2 marks)
6. (a) (i) Describe the term 'spun thread'. (2 marks)
- (ii) Identify **four** sewing thread defects. (4 marks)
- (b) Describe each of the following fabric finishes:
- (i) brushing; (2 marks)
- (ii) antistatic; (2 marks)
- (iii) calendering; (2 marks)
- (iv) tentering. (2 marks)
- (c) Illustrate each of the following woven fabric structures.
- (i) $\frac{2}{2}$ plain weave. (2 marks)
- (ii) $\frac{2}{1}$ right hand twill. (4 marks)

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