

1801/104

TEXTILE MATERIAL KNOWLEDGE
AND FABRIC COLOURATION THEORY

June/July 2016

Time: 3 hours

HOD CLOTHING AND TEXTILE
RAMOGI INSTITUTE OF ADVANCED TECHNOLOGY
P. O. BOX 1738 - 40100, KISUMU
DATE:.....



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN FASHION DESIGN AND GARMENT
MARKING 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.

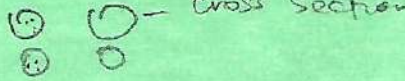
Question 1 is compulsory

1. (a) (i) State **six** methods of printing. (3 marks)
- (ii) Explain the term 'off register' as used in printing. (2 marks)
- (b) State the role of each of the following in a tie-and-dye process.
- (i) tong; (1 mark)
- (ii) mask. (1 mark)
- (c) Explain **four** factors to consider when selecting dyes. (8 marks)
- (d) Highlight **five** precautions to observe during the tie and dye process. (5 marks)
2. (a) Explain the term 'mixing' in fabrics, citing **three** of its objectives. (5 marks)
- (b) Highlight **four** limitations of pile fabrics. (4 marks)
- (c) Define the following cotton fabric production processes citing **two** objectives of each process.
- (i) combing; (3 marks)
- (ii) scouring; (3 marks)
- (iii) drafting. (3 marks)
- (d) State **two** categories of chemical tests done on fibres. (2 marks)
3. (a) Highlight **six** advantages of polyester fabrics. (6 marks)
- (b) Distinguish between each of the following:
- (i) Velvet and velveteen. (4 marks)
- (ii) Weft and warp knitting. (4 marks)
- (c) Outline **three** industrial uses of each of the following:
- (i) linen; (3 marks)
- (ii) silk. (3 marks)

4. (a) Highlight **two** objectives of each of the following fabric finishes:
- (i) glazing; - *Calendering* *manipulation in which starch is applied to fabric before passing it over hot steel rollers* (2 marks)
 - (ii) brushing; *removes short fibres from fabric surface & produces a smooth low pile surface* (2 marks)
 - (iii) bleaching; - *All natural colour & staining are removed* (2 marks)
- *reducing agents can either be oxidizing agents or reducing agents.*
 - (iv) starching. (2 marks)
- (b) Outline **four** sewing thread defects. (4 marks)
- (c) Describe the feeling test for each of the following fibres.
- (i) wool; (2 marks)
 - (ii) viscose; (2 marks)
 - (iii) linen. (2 marks)
- (d) State **two** advantages of elasticity in yarns. (2 marks)
5. (a) Explain **two** disadvantages of a cotton/polyester blend. (3 marks)
- (b) Outline **six** advantages of linen fabrics. (6 marks)
- (c) Explain **three** precautions to observe when storing viscose fabrics. (6 marks)
- (d) Identify the following care labels symbols.
- (i)  *drying* (1 mark)
 - (ii)  *ironing* (1 mark)
 - (iii)  *washing* (1 mark)
 - (iv)  *dry cleaning in all solvents* (2 mark)
6. (a) Illustrate the structure of each of the following weaves:
- (i) 3/3 basket (3 marks)
 - (ii) 2/1 left hand twill. (4 marks)

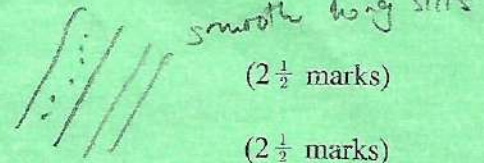
(b) Show the cross-sectional and the longitudinal microscopic views of each of the following fibres.

(i) nylon;



(2 ½ marks)

(ii) acetate.



(2 ½ marks)

(c) Highlight **three** disadvantages of static electricity in fabrics.

(3 marks)

(d) State **five** desirable qualities for a curtain fabric.

(5 marks)

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