

2803/102  
TEXTILE SCIENCE I AND  
CLOTHING CONSTRUCTION I THEORY  
June/July 2017  
Time: 3 hours

HIPHER



THE KENYA NATIONAL EXAMINATIONS COUNCIL  
DIPLOMA IN FASHION DESIGN AND CLOTHING TECHNOLOGY

MODULE I

TEXTILE SCIENCE I AND CLOTHING CONSTRUCTION I THEORY

3 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of TWO sections A and B.  
Answer any THREE questions in section A and any TWO questions from section B  
in the answer booklet provided.  
Marks to 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.

SECTION A: TEXTILE SCIENCE I (60 marks)

Answer any **THREE** questions from this section.

Substative  
Synthetic  
Natural

1. (a) (i) Describe the visual fibre identification method. (2 marks)  
(ii) Explain **two** limitations of visual fibre identification. (4 marks)
- (b) Outline **six** general characteristics of cellulosic fibres. (6 marks)
- (c) Explain **four** uses of yarns. (8 marks)
2. (a) Describe **five** characteristics of felted fabrics. (10 marks)
- (b) Explain **four** stages at which textile related materials can be dyed. (8 marks)
- (c) Identify **four** types of dyes. (2 marks)
3. (a) Describe crocheting as a fabric construction method, citing **two** disadvantages of crocheted fabric. (4 marks)
- (b) (i) Explain **four** advantages of woven fabrics. (8 marks)  
(ii) Explain **four** possible causes of dimensional instability in woven fabrics. (8 marks)
4. (a) Outline **six** effects of mercerization on fabrics. (6 marks)
- (b) (i) Describe the friction calendering process. (4 marks)  
(ii) Explain **five** objectives of additive finishes. (10 marks)
5. (a) Outline **eight** behavioural characteristics of protein fibres. (12 marks)
- (b) Distinguish between the following:  
(i) shoddy and mungo; (4 marks)  
(ii) fabric count and balanced fabric. (4 marks)

3b(ii)

3b(ii)

3 (i)  
loosely woven cloth  
shrink when washed  
Cotton is inflammable  
& flames up quickly  
Cotton fibres weaken  
by strong sun

SECTION B: CLOTHING CONSTRUCTION I (40 marks)

Answer any TWO questions from this section.

6. (a) Outline five desirable characteristics of fasteners. *They enclose together They are easy to open They allow ease for opening* (10 marks)
- (b) Identify five features that are both decorative and functional which can be incorporated in a dress. *Embroideries Bias bindings Laces Gathers* (5 marks)
- (c) Highlight five ways of decorating collar edges. *Top stitching using the bias binding at the edges use laces at the end. It can also make Shaped edges finish armholes necklines Penning* (5 marks)
7. (a) Explain four areas where facings can be applied. *collar, neck, pocket, waistband* (8 marks)
- (b) Outline three ways of ensuring flatness in yoke seams. *Use light weight fabric, use steam iron, use hand iron* (6 marks)
- (c) Explain three ways of making accurate hems. *Straight hem, French match and pin, seam line, the thimble, blind hem, slip hem, for decorative use light weight fabric* (6 marks)
8. With the aid of illustrations, outline the procedure for preparing and fixing an elton collar with a facing. (20 marks)

Can be applied at the waist band where it is put together with the waist band to make it strong hence allowing it to fit well. can also be applied on pocket flaps to make it more strong hence when turning it allows the edges of the pocket flap to be sharp on the collar to keep it fitting & look good when it is fixed on the bodice.

7b  
6c  
6a

3a  
3b (11)

THIS IS THE LAST PRINTED PAGE.

1c  
2b

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