Name _____ Index No. _____/_____

2803/102
TEXTILE SCIENCE I AND CLOTHING
CONSTRUCTION I THEORY
Oct./Nov. 2015
Time: 3 hours

Candidate's Signature _____

Date _____

Dip Jan

**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**

*Write your name and index number in the spaces provided above.*
*Sign and write the date of examination in the spaces provided above.*
*This paper consists of **EIGHT** questions in **TWO** sections; **A** and **B**.*
*Answer any **THREE** questions from section **A** and any **TWO** questions from section **B** in the spaces provided in this question paper.*
*Maximum marks for each part of a question are as shown.*
*Do **NOT** remove any pages from this booklet.*
***Candidates should answer the questions in English.***



**For Examiner's Use Only**

| Section | Question | Maximum Score | Candidate's Score |
|---|---|---|---|
| A | | 20 | |
| | | 20 | |
| | | 20 | |
| B | | 20 | |
| | | 20 | |
| | | TOTAL SCORE | |

**This paper consists of 20 printed pages.**
**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**



**Turn over**

## SECTION A: TEXTILE SCIENCE 1 (60 marks)

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

1. (a) Describe the following processes in wool fibre production:

   (i) shearing;

   (ii) grading;

   (iii) scouring;

   (iv) carbonizing;

   (v) carding. (10 marks)

   (b) Outline the behaviour of silk fibres in a burning test. (5 marks)

   (c) Outline **five** effects of mercerizing cotton fibres. (5 marks)

2. (a) Explain **four** factors that affect the quality of cotton fibres. (8 marks)

   (b) Outline **three** objectives for each of the following:

   (i) bale opening; (3 marks)

   (ii) combing. (3 marks)

   (c) Highlight **four** characteristics of cellulosic fibres. (6 marks)

3. (a) Outline **four** advantages and **four** disadvantages of open-end spinning. (8 marks)

   (b) Describe the following wool fibre parts citing a function in each case:

   (i) cuticle; (3 marks)

   (ii) medulla; (3 marks)

   (iii) cortex. (3 marks)

   (c) Describe novelty yarns citing an end use. (3 marks)

4. (a) (i) Outline **four** advantages and **four** disadvantages of laminating fabrics. (8 marks)

(ii) Describe **two** ways of producing bonded fabrics. (4 marks)

(b) Explain the following terms as used in colouration:

(i) pigment; (2 marks)

(ii) tendering; (2 marks)

(iii) frosting. (2 marks)

(c) Describe the cross dyeing process. (2 marks)

5. (a) Explain **two** shortcomings of batik colouration. (4 marks)

(b) Describe the following processes:

(i) beetling; (3 marks)

(ii) decatizing. (4 marks)

(c) Outline **three** characteristics of each of the following fabrics:

(i) waterproof; (3 marks)

(ii) water-resistant. (3 marks)

(d) Identify **three** advantages of sulphur dyes. (3 marks)



## SECTION B: CLOTHING CONSTRUCTION I (40 marks)

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

6. (a) (i) Describe **three** categories of facings. (6 marks)

(ii) Explain **three** functions of facings. (6 marks)

(b) Explain **four** techniques of ensuring accuracy when machine seaming. (8 marks)

- Tacking
- Presser foot
- balance marks

7. (a) Outline the procedure for constructing a faced slit opening. (6 marks)

(b) Explain **two** ways of decorating collars. (4 marks)

(c) Explain **two** circumstances when each of the following is suitable for use during clothing construction:

(i) slip hemming: (4 marks)

(ii) machine hemming. (4 marks)

(d) Outline **two** advantages of an electric iron. (2 marks)

8. (a) Outline the procedure for using a fire extinguisher. (4 marks)

(b) (i) Explain the term 'mitre' as used in garment construction. (2 marks)

(ii) Outline **two** occassions when it may be necessary to mitre in garment construction. (2 marks)

(c) Outline the general procedure for making a trouser. (12 marks)