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)