



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations 2015/2016

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF FASHION DESIGN AND MARKETING

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN FASHION DESIGN AND
MARKETING

FDD 203: TEXTILE PERFORMANCE AND TESTING

Date: 4/8/2016

Time: 2:00 – 4:00 PM

INSTRUCTIONS:

- *This paper consists of FIVE questions.*
- *Answer question one and other two questions in this paper.*

QUESTION ONE

1. a) Define the following terms
 - i. Fabric
 - ii. Textile Performance
 - iii. Textile Testing
 - iv. Air permeability
 - v. Yarn (10 marks)
- b) List 4 factors that influence pilling (4 marks)
- c) With the aid of a chart, classify textile fibres giving an example in each category. (8 marks)
- d) Define the term “Textile Standards” (2 marks)
- e) Describe the following characteristics in relation to fabric performance testing
 - i. Breaking strength
 - ii. Tearing strength
 - iii. Flammability (6 marks)

QUESTION TWO

- a) Define colour fastness (1 mark)
- b) Explain the **2** types of polymers giving **2** examples of fibres in each category (6 marks)
- c) Explain 4 essential properties of fibre forming polymers (8 marks)
- d) Describe the procedure of carrying out the crease recovery test on a fabric (5 marks)

QUESTION THREE

- a) Define dimensional stability in fabrics (1 mark)
- b) List **4** characteristics of fabrics that influence air permeability (4 marks)
- c) Explain **3** factors to consider before carrying out an abrasion resistance test (6 marks)
- d) Explain **1** method used in testing yarn strength (3 marks)
- e) Describe the properties of wool under the following sub headings:
 - i) Physical Properties
 - ii) Thermal Properties
 - iii) Chemical Properties (6 marks)

QUESTION FOUR

- a) Highlight the **4** categories of copolymers (2 marks)
- b) Describe **3** colour fastness tests (6 marks)
- c) Outline 4 fabric defects that may affect the performance of a fabric (2 marks)
- d) Describe:
 - i) **3** primary properties of textile fibres (6 marks)
 - ii) **2** secondary properties of textile fibres (4 marks)

QUESTION FIVE

- a) Highlight 2 conditions for fibre testing (2 marks)
- b) Explain **3** purposes of fibre testing (6 marks)
- c) Describe the procedure of carrying out a test for fabric pilling (4 marks)
- d) Describe:
 - i) **2** Non- technical fibre identification tests (4 marks)
 - ii) **2** Technical fibre identification tests (4 marks)