



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF FASHION DESIGN AND MARKETING

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN
FASHION DESIGN AND MARKETING**

HFD 308: TEXTILE PERFORMANCE TESTING

DATE: 3/8/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

This paper consists of FIVE questions.

Answer Question 1 and any other TWO questions

Question 1 carries 30 marks

Question 2-5 carry 20 marks each

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Highlight THREE effects of fiber fineness on yarn and fabric properties. (6 marks)
- b) Explain the THREE physical properties of textiles affected by moisture. (6 marks)
- c) State FOUR potential faults that can be caused by immature fibers during processing. (4 marks)
- d) Explain any TWO factors that affect textile during tensile testing (4 marks)
- e) Describe the process of determining; (4 marks)
 - i. Colour fastness to washing
 - ii. Colour fastness to perspiration

- f) You only have a matchbox with you. Describe how you can identify the following fibers; (6 marks)
- i. Cotton
 - ii. Wool
 - iii. Polyester

QUESTION TWO (20 MARKS)

You have applied for a job as a testing officer at Kenya Bureau of Standards in the Textile Laboratory. During your interview, a member of the interview panel asks you the importance of Textile Testing. Explain to the panel the objectives of Textile Testing. (20 marks)

QUESTION THREE (20 MARKS)

It is important that twist level of yarns is known during performance. Discuss the FIVE effects of twist level other than strength. (20 marks)

QUESTION FOUR (20 MARKS)

You have received cotton from different regions of Kenya. Describe the process of obtaining the different fiber diagrams and explain the steps you will undertake in the determination of effective length of the fibers from the fiber diagrams. (20 marks)

QUESTION FIVE (20 MARKS)

Using a well labeled diagram, describe fabric tensile strength measurement using the strip method. (20 marks)