



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF FASHION DESIGN AND MARKETING
THIRD YEAR SUPPLEMENTARY /SPECIAL EXAMINATION FOR
BACHELOR OF SCIENCE IN FASHION DESIGN AND MARKETING**

HFM 308: TEXTILE PERFORMANCE TESTING

DATE: 7/3/2023

TIME: 8.30 – 10.30 AM

INSTRUCTIONS:

- i) *This paper consists of **five** questions.*
- ii) *Answer Question 1 and any other **two** questions.*
- iii) *Question 1=20 marks*
- iv) *Question 2 to 5=15 marks each*

QUESTION ONE

- a) Define the following terminologies as used in textile performance testing.
 - i. Statistical quality control
 - ii. Pilling
 - iii. Twist
 - iv. Elongation
 - v. Bursting strength. **(5 marks)**
- b) State and discuss any three categories of properties that one needs to focus on when testing textile materials. **(6 marks)**
- c) Outline four factors that contribute to the strength of any sewn seam in a garment. **(4 marks)**
- d) Explain three considerations you will have to be keen on when determining yarn twists. **(3 marks)**
- e) State two aims of standardization. **(2 marks)**

QUESTION TWO

- a) State the factors that will influence the results when testing for abrasion. **(5 marks)**
- b) With a pendulum machine, the found strength of a given sample may vary. Explain three reasons that can account for this variation. **(3 marks)**
- c) With aid of a diagram explain the essential features of a wrap reel used for measuring long lengths of yarns. **(7 marks)**

QUESTION THREE

Flammability of a fabric is important in the safety of use of textile products. Discuss five fabric characteristics that would affect flammability. **(15 marks)**

QUESTION FOUR

Fibre content of any textile material is very vital in usage and care of textile products. In relation to the above statement, discuss the five basic methods one could use to identify the fibre content of assorted fabrics. **(15 marks)**

QUESTION FIVE

Textile materials must meet some requirements so as to qualify for textile use. Discuss. **(15 marks)**