



**MACHAKOS UNIVERSITY**  
University Examinations for 2020/2021 Academic Year  
**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**  
**DEPARTMENT OF FASHION DESIGN AND MARKETING**  
**FIRST YEAR FIRST TERM EXAMINATION FOR**  
**DIPLOMA IN FASHION DESIGN AND CLOTHING TECHNOLOGY**  
**2803 /102/ TS: TEXTILE SCIENCE**

**DATE: 8/6/2021**

**TIME: 2.30-5.30 PM**

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**INSTRUCTIONS:**

ANWER ALL QUESTIONS

1. a) Define the following term
  - i. Fibre (3 marks)
  - ii. Yarn (2 marks)
  - iii. Textile (2 marks)
- b) Differentiate the following
  - i. Resiliency (3 marks)
  - ii. Elasticity (3 marks)
- c) Describe three methods of retting flax fibres (12 marks)
2. a) Outline two main groups of natural fibres (5 marks)
- b) Highlight five properties of linen (5 marks)
- c) Explain the production and processing of wool fibres (15 marks)
3. a) with the aid of a chart, classify textile fibres citing two examples in each class (10 marks)
- b) Highlight any five fibre properties (5 marks)
- c) Describe the behavior of the following fibres in a burning test
  - i. Silk (5 marks)
  - ii. Linen (5 marks)
4. a) Explain the production and processing of cotton fibres (15 marks)
- b) Explain mercerization process in relation to cotton (5 marks)
- c) Differentiate filament and staple fibres (5 marks)