



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF FASHION DESIGN AND MARKETING

FIRST YEAR FIRST/SECOND SEMESTER EXAMINATION FOR
CRAFT CERTIFICATE IN FASHION DESIGN AND GARMENT MAKING

TEXTILE MATERIAL SCIENCE

DATE: 15/4/2019

TIME: 2:30 – 5:30 PM

INSTRUCTIONS

Answers all questions

1. a) Define the following terms
 - i) Filament
 - ii) Hydrophobic
 - iii) Resiliency
 - iv) Electrostatic electricity
 - v) Hygroscopic (10 marks)
- b) Outline the similarities and differences between regenerated fibers and synthetic fibers (10 marks)
2. a) Explain the process through which asbestos fibers undergoes. (9 marks)
- b) Discuss the following properties of asbestos fibers
 - i) Strength
 - ii) Absorbency
 - iii) Resistance to heat
 - iv) Resistance to chemicals (8 marks)
- c) State the uses of asbestos fibers (3 marks)
3. a) With the aid of diagrams discuss the three spinning methods used in synthetic fibers (15 marks)
- b) Explain how nylon fibers behave when subjected to burning test (5 marks)

4. a) With the aid of a diagram illustrate the longitudinal and cross-sectional views of silk, wool and nylon (15 marks)
- b) Explain the major differences between worsted and woolen fibers (5 marks)
5. With the aid of a diagram illustrate the general classification of textile fibers and give three examples of each (20 marks)