



THE KENYA POLYTECHNIC UNIVERSITY
COLLEGE

DEPARTMENT OF INSTITUTIONAL MANAGEMENT

DIPLOMA IN CLOTHING TECHNOLOGY

END OF YEAR II EXAMINATIONS

NOVEMBER 2007 SERIES

TEXTILE SCIENCE

TIME: 3 HOURS

INSTRUCTIONS:

Answer FIVE Questions On The Answer sheets Provided

This paper consists of 3 printed pages

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1. a) Explain the following terms:-
 - (i) Saponification
 - (ii) Thermoplastic
 - (iii) Wales
 - (iv) Dew retting
 - (v) Tenacity

(10 marks)
- b) Differentiate between the following
 - (i) Matting and felting.
 - (ii) Regenerated and synthetic fibres
 - (iii) Weft and warp knitting
 - (iv) Thread and yarn
 - (v) Staple and filament yarns

(10 marks)
2. a) With the aid of illustrations, describe the FOUR basic types of weaves

(16 marks)
- b) Explain the following methods of fabric construction
 - (i) Bonding.
 - (ii) Laminating.

(4 marks)
3. Draw a detailed chart of classification of textile fibres, citing specific fibre examples

(20 marks)
4. a) Explain the following fabric finishes:-
 - (i) Calendering.
 - (ii) Stentering.
 - (iii) Embossing.
 - (iv) Singeing.

(v) Mercerization (15 marks)

b) Describe the open end method of yarn production (5 marks)

5. a) With the aid of clearly labeled diagrams, explain how you would identify the following fibres under the microscopic test:-

i. Linen.

ii. Silk.

iii. Rayon.

iv. Nylon.

v. Wool. (10 marks)

b) Explain FIVE ways in which you care for a viscose fabric

6. a) Discuss three qualities of a good dye. (6 marks)

b) Explain THREE ways in which you test for colour fastness at home (6 marks)

c) Briefly describe the basic process used in the manufacture of flax. (8 mark)