



UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER

**PROGRAMME : BACHELOR OF SCIENCE IN TEXTILE APPAREL
DESIGN and MANAGEMENT YEAR II**

COURSE CODE : TADM 205

TITLE OF PAPER : TEXTILE SCIENCE AND LAUNDRY

TIME ALLOWED : TWO (2) HOURS

**INSTRUCTIONS : ANSWER QUESTION ONE (1)
AND ANY OTHER TWO (2) QUESTIONS**

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THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

- a) Describe with the aid of diagrams melt, wet and dry spinning techniques for the production of man-made fibres, and for each technique give an example of **one (1)** fibre produced by it. **(5x3= 15 Marks)**
- b) In one of your practical sessions you performed a burning test on cotton and nylon fibres. What were your observations with regards to the behaviour of the fibres in terms of :
- Odour
 - Residue
 - When fibre was approaching the flame
 - When in flame
 - When removed from the flame
- (5x2= 10 Marks)**
- c) Give **four (4)** stages in which textiles can be coloured **(4x2 =8 Marks)**
- d) Briefly explain the mechanical and thermal (effect of heat) properties of cotton fibres **(7 Marks)**

[40 MARKS]**QUESTION 2**

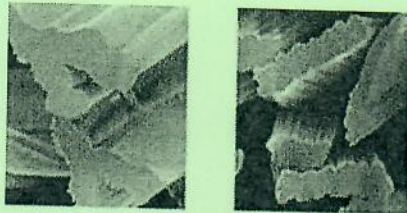
- a) Explain the effect of yarn twist on the following yarn properties
- Strength
 - Handle
 - Moisture absorption
 - Wearing properties
 - Elasticity
- (10 Marks)**
- b) Give a detailed explanation of the effect of texturing on yarn and fabric comfort properties **(8 Marks)**
- c) Describe the following types of fancy yarns
- Slub yarns
 - Metallic yarns
 - Chenille yarns
 - Marl yarns
 - Knop (button) yarns
 - Loop yarns

(6x2= 12 Marks)**[30 MARKS]****QUESTION 3**

- a) Explain the wool production process **(6x2= 12 Marks)**

- b) Which fibre has the following cross sectional shape?

(2 Marks)



- c) Give **six (6)** properties of the above mentioned fibre. (6 Marks)
d) Describe **five (5)** types of water repellent chemicals that can be used to alter moisture properties in textiles (5x2= 10 Marks)

[30 MARKS]

QUESTION 4

- a) What is meant by durable press garments? (4 Marks)
b) Describe how durable press garments must be laundered. (4 Marks)
c) With the aid of a diagram show the structural elements of a woven fabric. (8 Marks)
d) Differentiate between woven and knitted fabrics (14 Marks)

[30 MARKS]