

**1<sup>ST</sup> SEM. 2008/2009**



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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

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

**COURSE CODE : TADM 404**

**TITLE OF PAPER : ADVANCED TEXTILE SCIENCE**

**TIME ALLOWED : TWO (2) HOURS**

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

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GRANTED BY THE CHIEF INVIGILATOR**

**ADVANCED TEXTILE SCIENCE**

**QUESTION 1**

- a) List and discuss five (5) emerging textile fibres discussed in class. **[15 marks]**
- b) Discuss the environmental impact of weaving industry, giving examples. **[5 marks]**
- c) Discuss industrial textiles under the following headings:
- i) Air pollution
  - ii) Sound absorption
  - iii) Isolation wards
  - iv) Surgical sutures
  - v) Filters. **[10 marks]**
- d) Write about what you learnt from the field trip to Express Textiles under the following headings:
- i) What items does Express Textiles Produce?
  - ii) How did the company raise finance to start the business?
  - iii) Challenges the company faced
  - iv) Quality control **[10 marks]**

**[TOTAL MARKS = 40]**

**QUESTION 2**

- a) Name five (5) compound fabrics which were discussed in class and name end uses. **[10 marks]**
- b) From the list of compound fabrics named in (a) above, name the one you made in the clothing laboratory. **[2 marks]**
- c) By means of a well labelled diagram, show the structure of the compound fabric named in b) above. **[8 marks]**
- d) Name three basic single wefts knits you hand knitted in the laboratory and their importance. **[5 marks]**
- e) List and discuss three aesthetic appeal finishes that alter the lustre of fabrics. **[5 marks]**

**QUESTION 3**

- a) Name two (2) uses of the fabric you have named in 2 b) above. **[2 marks]**
- b) Why were the compound yarns and fancy yarns developed? Discuss. **[4 marks]**
- c) What is the difference between the term a course and a wale as in knitting technology **[4 marks]**
- d) If you were commissioned by Small Enterprise Development Company (SEDCO) to make samples on the following protective clothes, which fabrics would use or buy and why?
  - i) Fire fighter's coat
  - ii) Vest for soldiers in war zone. **[4 marks]**
- e) List and discuss four emerging yarns giving examples. **[16 marks]**

**[TOTAL MARKS = 30]**

**QUESTION 4**

- a) List and discuss four (4) durability properties you examined in the textile science laboratory. **[8 marks]**
- b) Name and discuss two (2) comfort and protection finishes that increase the insulating properties of a fabric and give two uses or examples. **[6 marks]**
- c) Name and explain three (3) performance advantages of knitted fabrics **[6 marks]**
- d) List and discuss three main mechanical finishes done on fabrics. **[6 marks]**
- e) For TAF Garment tour, the last station was the laundry; name and discuss fabric finishes for colour alteration that were discussed. **[4 marks]**

**[TOTAL MARKS = 30]**