



**2<sup>ND</sup> SEM. 2019/20**

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**UNIVERSITY OF ESWATINI  
FINAL EXAMINATION PAPER**

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

**COURSE CODE : TAD402/ TADM 404**

**TITLE OF PAPER : CONTEMPORARY TEXTILES**

**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 the electrospinning process and give **two (2)** areas where electrospun nano fibres can be used. **(12 Marks)**
- b) Explain with the aid of a relevant example the significance of moisture management in textiles. **(10 Marks)**
- c) Many kinds of functional textiles are invented by mimicking the structure and function of biological systems. Describe the following technologies and give one application area where each technology has been taken advantage of in the field of textiles and apparel. **(10 Marks)**
- Shark skin effect
  - Lotus effect
- d) Name and state the advantages of the technology used to produce the vest in the figure below. **(6 Marks)**



- e) Briefly describe laminated fabrics. **(2 Marks)**

**[TOTAL MARKS= 40]****QUESTION 2**

- a) Currently there is a strong push within the apparel industry to make every phase of production more sustainable. Discuss **two (2)** trends that have emerged as a way to address sustainability issues within the industry. **(12 Marks)**
- b) Discuss why there has been a shift in the medical sector towards using disposable textile products. **(10 Marks)**
- c) Briefly explain why each of the following fibres are considered green **(8 Marks)**
- Organic cotton
  - Hemp
  - Bamboo
  - Lyocell

**[TOTAL MARKS = 30]**

**QUESTION 3**

- a) Fire fighter suits are constructed using the three layer principle. Name and describe the three layers that make up a fire fighter's suit. (15 Marks)
- b) Describe the following textile finishes. (12 Marks)
  - i) Waterproof
  - ii) Stain release
  - iii) Flame retardant
- c) Name **three (3)** inherent properties of polyester that make it ideal for making wipes. (3 Marks)

[TOTAL MARKS =30]

**QUESTION 4**

- a) Explain microencapsulation and give an application area where it can be used in textiles. (10 Marks)
- b) Using your knowledge of smart textiles give an example of an active smart textile product and discuss how it qualifies to be considered an active smart textile (10 Marks)
- c) GUIDE<sup>TM</sup> offers a wide range of protective gloves.
  - i) Name **two (2)** high performance fibres that they use to make their range of cut and heat protective gloves. (2 Marks)
  - ii) Explain the properties of the fibres in (i) that make them suitable for that particular application (8 Marks)

[TOTAL MARKS = 30]