



1st SEM. 2015/16

PAGE 1 OF 4

**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER**

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

COURSE CODE : TADM 404

TITLE OF PAPER : CONTEMPORARY TEXTILES

TIME ALLOWED : TWO (2) HOURS

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

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY
THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

a) Retail outlets in the country are selling a number of textile products; advise the Ministry of Commerce, Trade and Industry on **four (4)** laws and regulations that they may have to enforce in order to protect consumers from being exploited. **(20 Marks)**

b) Textile innovation is a new way of using an existing fibre, yarn or fabric. Describe the textile innovation of the following fibres that gives them superior moisture transportation characteristics. **(10 Marks)**

- i) Polyester
- ii) Nylon

c) Nanotechnology is beneficial in many areas; discuss **five (5)** safety concerns of its use in textiles and clothing. **(10 Marks)**

[TOTAL MARKS = 40]

QUESTION 2

a) Explain why Trevira CS is a suitable fabric for fire fighters' gear. **(10 Marks)**

b) Describe the performance characteristics of hydrophobic and porous films as well as hydrophilic and closed laminated films. **(10 Marks)**

c) Nano-finishes have introduced new improved properties to textiles. Name and describe **five (5)** nano-finishes and suggest **one (1)** specific way each benefits the consumer. **(10 Marks)**

[TOTAL MARKS = 30]

QUESTION 3

a) Compound fabrics are composed of two or more layers of fabric or layers of fabric and another/other component(s). Describe the structure of a quilted fabric and how it contributes to its performance characteristics and functionality. **(9 Marks)**

b) Give **two (2)** reasons for the following:

- i) Knit fabrics provide excellent insulation and warmth in still air, but tend to be poor insulators under windy conditions.
- ii) Knitted fabrics are more suitable for active wear than woven fabrics
- iii) Rib knits are suitable for knit cuffs and sweater waist bands. **(6 Marks)**

c) Discuss how properties of the following fibre, yarn, fabric and finish contribute to their functionality. **(15 Marks)**

- i) Warp knit fabric with carbon fibre insertion
- ii) Multifilament hard twist yarn
- iii) Polyester fibre with carbon insertion
- iv) Flame retardant finish
- v) Ultraviolet Protection/ Sun Factor finish

[TOTAL MARKS = 30]

QUESTION 4

a) Polartec ® is a high-tech layered cold weather fabric; explain the properties and give examples of fabrics suitable for each layer. **(10 Marks)**

b) Name **four (4)** aesthetic appeal finishes and the desired effect they provide in textiles. **(8 Marks)**

c) Describe and illustrate the performance mechanism incorporated into the following emerging fabrics. **(3 x 4 = 12 Marks)**

- i) TEXCARE® UV Protection fabric
- ii) TEXCARE® ICEFEL
- iii) TEXCARE® FAST ABSORPTION AND DRY

[TOTAL MARKS = 30]

