



1ST SEM. 2017/18

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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

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

COURSE CODE : TADM 404

TITLE OF PAPER : CONTEMPRARY TEXTILES

TIME ALLOWED : TWO (2) HOURS

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

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INVIGILATOR**

QUESTION 1 (COMPULSORY)

- a) Discuss in detail **one (1)** regulation safeguarded by each of following agencies:
i) The Environmental Protection Agency
ii) The Federal Trade Commission
(10 Mark)
- b) Describe the technical aerospace textiles used in the construction of the following; include their desirable characteristics in each case.
i) G-Suit
ii) Parachute
(10 Marks)
- c) Name **five (5)** specific industrial uses of textiles. Give **one (1)** specific example for each use.
(10 Marks)
- d) Define knitting. Differentiate between the appearance and performance characteristics of the following knit fabric structures.
i) Single jersey knit
ii) Rib knit
iii) Purl knit
(1 + 9 = 10 Marks)

[TOTAL MARKS = 40]

QUESTION 2

- a) Newlife™ range reflects and adds functionalities to technical performances. Name **three (3)** textile products under this range and describe their performance attributes.
(9 Marks)
- b) Name **six (6)** applications of the nanotechnology in textiles.
(6 Marks)
- c) Describe how the following are achieved and incorporated into smart textiles.
i) Chromic materials
ii) Bio-mimics
iii) Conductive polymer's
(15 Marks)

[TOTAL MARKS = 30]

QUESTION 3

a) Discuss how each of the fibres below qualify to be labelled as Eco-friendly textiles.

- i) Hemp
- ii) Bamboo
- iii) Soy Silk
- iv) Tencel

(16 Marks)

b) Explain the use of **three (3)** enzymes in the Bioprocessing of textiles. Include examples in your answer.

(6 Marks)

c) Describe the structure of woven and knitted fabric structures and how each impacts their performance. Use example to justify your answer.

(8 Marks)

[TOTAL MARKS = 30]

QUESTION 4

a) Describe **three (3)** breathable waterproof fabrics used in active sportswear. Explain how their structures are appropriate for their function.

(12 Marks)

b) Describe **three (3)** applications of composites and give its **three (3)** advantages and **three (3)** disadvantages. Tabulate your answer.

(9 Marks)

c) Describe **three (3)** classes of aesthetic finishes and give **two (2)** examples under each class.

(9 Marks)

[TOTAL MARKS = 30]