UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER

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

COURSE CODE : TAD402/ TADM 404

TITLE OF PAPER : CONTEMPORARY TEXTILES

TIME ALLOWED : TWO (2) HOURS

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

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QUESTION 1 (COMPULSORY)

a) The textile industry is a major contributor to the global water pollution. Discuss **four (4)** ways in which the textile industry can minimise the extent of water pollution. **(20 Marks)**

b) Name and describe any **one (1)** law addressing each of the following:
   i) Quality control of textile products.
   ii) Safety of textile products
   iii) Care and laundering of textile products
   iv) Imitation of expensive textile products

(12 Marks)

c) Proban and Nomex are functional finishes used on fire fighters' gear. Compare how each introduces the protective qualities of the gear. **(8 Marks)**

[TOTAL MARKS = 40]

QUESTION 2

a) Describe end use applications of bicomponent fibres under each of the following functional properties.

   i) Antistatic
   ii) Liquid absorption
   iii) Self-crimping
   iv) Thermal bonding
   v) Electro-conductive
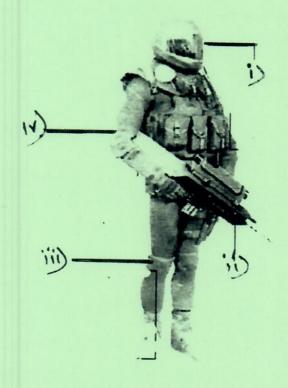   vi) Light-conductive

(12 Marks)

b) Name and describe **four (4)** newer eco-friendly fibres in the market. Explain how each qualifies as an eco-friendly fibre. **(8 Marks)**

c) Discuss **five (5)** ways in which nanotechnology is used in textiles that benefit the consumer. **(10 Marks)**

[TOTAL MARKS = 30]

QUESTION 3

a) Name and describe the function of each of the **four (4)** main components shown on the combatant gear below.

(12 Marks)

b) Describe how high performance fabrics are engineered for each of the functions below:
   i)   Thermal insulation
   ii) Water proof breathable
   iii) Comfort cooling
   iv) Moisture transport/wicking

(12 Marks)

c) Name and describe **three (3)** categories of Smart Interactive Textiles.

(6 Marks)

[TOTAL MARKS = 30]

QUESTION 4

a) Answer the following questions based on your understanding of the application of aesthetic finishes to textiles. **Tabulate your answer**.

   i) Differentiate between additive and subtractive finishes.   **(4 Marks)**
   ii) Name **four (4)** finishes under each category in i) above.   **(8 Marks)**
   iii) Give **one (1)** performance quality for each finish in ii) introduced to textiles.   **(8 Marks)**

c) Describe **five (5)** general performance characteristics of knit fabrics.   **(10 Marks)**

[TOTAL MARKS = 30]