

2nd SEM. 2017/18



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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

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

COURSE CODE : TADM 410

TITLE OF PAPER : PRODUCT DEVELOPMENT

TIME ALLOWED : TWO (2) HOURS

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

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GRANTED BY THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

- (a) Product development in this course pertains to the production of mass produced garments with a fashion focus. Explain why you agree or disagree with the above statement.
(5 Marks)
- (b) Briefly state the functional properties that the Cyberia survival kit was to provide.
(10 Marks)
- (c) In product development, one may opt to produce store branded or licensed products among other types of products. Differentiate between the **two (2)** types of products.
(2x5 = 10 Marks)
- (d) The end of the product life cycle of a smart clothing involves electrical and electronics equipment waste. How can you minimize the effects of such waste as an apparel designer?
(5x2 = 10 Marks)
- (e) Relate integral shaping, variable knits and body mapping under 3D knitted fabrics.
(5 Marks)

[TOTAL MARKS = 40]

QUESTION 2

- (a) Smartlife technology uses fabric switches and sensors in its formation. Explain the technology and where it can be applied.
(5x2 = Marks)
- (b) How was Gaskill's 1992 model improved by Wickett, Gaskill and Damhorst 1999?
(5 Marks)
- (c) Discuss how woven fabrics assist with thermal regulation in functional wear.

(15 Marks)
[TOTAL MARKS = 30]

QUESTION 3

- (a) In designing apparel for the aging population, what **five (5)** factors should you consider for their product development?
(5x3 = 15 Marks)
- (b) Briefly explain broadly the uses of woven fabrics in functional wear under the following sub-points:
i) Ease of movement
ii) Protection from water
iii) Protection from falls

(3x5=15 Marks)

[TOTAL MARKS = 30]

QUESTION 4

- (a) Briefly describe the use of sensors and GPS on apparel.
(5x2 = 10 Marks)
- (b) Explain how woven structures act as conductive fabrics.
(10 Marks)
- (c) Differentiate between warp and weft knits.

(5x2=10 Marks)

[TOTAL MARKS = 30]