



**1<sup>ST</sup> SEM. 2016/17**

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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 402**

**TITLE OF PAPER :** **QUALITY CONTROL AND ASSURANCE IN  
TEXTILES AND APPAREL**

**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) Quality is perceived differently based on who is defining it. Describe **five (5)** different quality perceptions. (20 Marks)
- b) Describe the **six (6)** types of full consensus standards that were developed by ASTM. (12 Marks)
- c) Briefly discuss what you understand by the following concepts:
  - i. Quality control
  - ii. Quality assurance(8 Marks)

[TOTAL MARKS = 40]

**QUESTION 2**

- a) According to Kadolph (2007), testing is a common practice within the textile industry complex to assess materials and products in an effort to minimise product failure and improve customer satisfaction. Discuss the different ways of testing that can be used to assess materials and or products (20 Marks)
- b) Name **two (2)** organisations involved in the development of standards in the Textile Industry (2 Marks)
- c) Briefly describe the following types of specifications
  - i. Target
  - ii. Functional
  - iii. Material
  - iv. Product(8 Marks)

[TOTAL MARKS = 30]

**QUESTION 3**

- a) You have been tasked with developing a Standard Test method that will be used to evaluate moisture properties of fabrics produced by a group of companies. Discuss **three (3)** key criteria that you will have to consider when developing the test method. (15 Marks)
- b) Discuss **five (5)** qualitative procedures that can be used to determine the generic fibres present in a material. (15 Marks)

[TOTAL MARKS = 30]

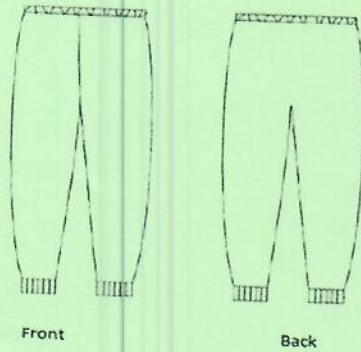
**QUESTION 4**

- a) Briefly discuss how the following elements are evaluated during finished product evaluation:
  - i. Design
  - ii. Fit



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- iii. Appearance  
iv. Size
- b) For the sketches given below, identify and explain three zones than can be used in the evaluation of the pants. ( 16 Marks)  
(12 Marks)



- c) Define Body scanning

(2 Marks)

[TOTAL MARKS = 30]



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**UNIVERSITY OF SWAZILAND**  
**SUPPLEMENTARY EXAMINATION PAPER**

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IV

**COURSE CODE :** TADM 402

**TITLE OF PAPER :** QUALITY CONTROL AND ASSURANCE IN  
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**TIME ALLOWED :** TWO (2) HOURS

**INSTRUCTIONS :** ANSWER QUESTION ONE (1)  
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**QUESTION 1 (COMPULSORY)**

- a) Discuss **six (6)** dimensions of quality, giving an example for each dimension. (18 Marks)
- b) Give a detailed description of the Cantilever stiffness test and show how the stiffness of a material is determined using this test. (15 Marks)
- c) List **five (5)** factors that might affect the accuracy of a test results? (5 Marks)
- d) Why is it important for testing of materials to be done under standard conditions? (2 Marks)

[TOTAL MARKS =40]

**QUESTION 2**

- a) The Company that you work for has decided to use an Independent testing facility for all its testing needs, as a Quality Manager, discuss the factors you will consider when choosing the testing facility (9 Marks)
- b) Make a sketch of a product of your choice and identify different zones that can be used to evaluate the product for defects. Explain your rationale for the boundaries of the zones. (15 Marks)
- c) Briefly explain the following types of shrinkage:
  - i. Relaxation shrinkage
  - ii. Felting shrinkage
  - iii. Residual shrinkage(6 Marks)

[TOTAL MARKS = 30]

**QUESTION 3**

- a) Quality is perceived differently based on who is defining it. Describe five different quality perceptions (20 Marks)
- b) Explain the difference between CRT and CRE based tensile testing machines. (4 Marks)
- c) With the aid of a diagram show how the specimen in a modified grab test is prepared. (6 Marks)

[TOTAL MARKS =30]

**QUESTION 4**

- a) Discuss the application of materials testing to product development. (12 Marks)
- b) Discuss **five (5)** qualitative procedures that can be used to determine the generic fibres present in a material. (15 Marks)

- c) Name **three (3)** organisations involved in developing standards in Textile. **(3 Marks)**

**[TOTAL MARKS = 30]**