



2nd SEM. 2013/2014

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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

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

COURSE CODE : TADM 206

TITLE OF PAPER : FABRIC CONSTRUCTION DESIGN

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) Describe characteristics of ring spun, open-end rotor and air jet spun yarns under the following sub headings:
i) insulation,
ii) abrasion resistance,
iii) pilling properties,
iv) thermal retention (8 Marks)
- b) Outline instructions on how to make **four (5)** different 5 cm specimens using basic filling/ weft knit stitches, include illustrations. (5 X 4 = 20 Marks)
- c) Giving examples, explain the differences between felted and bonded fabrics. (2 X 6 = 12 marks)

[TOTAL MARKS = 40]

QUESTION 2

- a) Using simplified diagrams describe **four (4)** methods of texturing yarns. (4 X 4 = 16 Marks)
- b) Discuss **five (5)** performance characteristics of knitted fabrics. (10 Marks)
- c) Explain the term directional pile, name two fabrics with directional pile. (4 Marks)

[TOTAL MARKS = 30]

QUESTION 3

- a) Explain how yarn twist can be used to obtain different yarn characteristics. Support your answer with examples. (10 Marks)
- b) Explain how you would differentiate between warp and weft knits (10 Marks)
- c) Describe **five (5)** characteristics of twill woven fabrics. (10 marks)

[TOTAL MARKS = 30]

QUESTION 4

- a) Why do knits knit fabrics provide more warmth than woven fabrics?
(4 Marks)
- b) Describe the following non-woven methods of fabrication.
i) Dry laid
ii) Wet laid
iii) Spun bonded
iv) Hydro entangled
v) Melt blown
(10 Marks)
- c) Define the following terms as used in knitting:
i) Wale
ii) Course
iii) Gauge/cut
iv) Technical face
v) Technical back
(5 Marks)
- d) Describe five (5) characteristics of satin woven fabrics. (10 marks)
- e) What is the difference between warp and weft threads of a woven fabric?
(1 Mark)

[TOTAL MARKS = 30]