



2ND SEM. 2018/19

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**UNIVERSITY OF ESWATINI
FINAL EXAMINATION PAPER**

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

COURSE CODE : TAD206

TITLE OF PAPER : FABRIC CONSTRUCTION

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) State and explain the primary motions of weaving. (10 Marks)
- b) Give **five (5)** advantages that shuttleless looms have over traditional looms. (5 Marks)
- c) Give **five (5)** yarn characteristics that have a direct influence of fabric properties (5 Marks)
- d) Discuss the challenges faced by the African textile Industry. (5×2 Marks)
- e) Briefly discuss the importance of the blow-room to the final yarn produced in ring spinning. (6 Marks)
- f) Briefly describe the following as used in circular knitting (4 Marks)
 - i. Rib setting
 - ii. Interlock setting

[TOTAL MARKS= 40]

QUESTION 2

- a) Briefly describe the basic principle of stack blending. (6 Marks)
- b) Give **five (5)** requirements for the drafting arrangement. (5 Marks)
- c) Describe the basic process of combing. (10 Marks)
- d) Define stitch length and briefly explain how this affects fabric quality. (2+4 Marks)
- e) Explain your understanding of a weave repeat. (3 Marks)

[TOTAL MARKS = 30]

QUESTION 3

- a) Ring spun yarns are the most commonly used yarns in textile production. Explain how these yarns are formed during ring spinning. (10 Marks)
- b) The length of a fabric is 10 m. The length of a warp yarn, removed from the fabric, in straight condition is 10.8 m. Determine the crimp% in warp direction. What should be contraction %? (8 Marks)
- c) Name **four (4)** properties of air jet yarns. (4 Marks)
- d) Briefly explain the operating sequence in a roving frame (8 Marks)

[TOTAL MARKS =30]

QUESTION 4

- a) Briefly describe the **three (3)** basic elements of a woven design. (12 Marks)
- b) Explain why sizing of yarn is a necessary step before weaving. (8 Marks)
- c) Briefly describe the process of warping. (8 Marks)
- d) Give **two (2)** weave representation methods. (2 Marks)

[TOTAL MARKS = 30]