



UNIVERSITY OF SWAZILAND
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**

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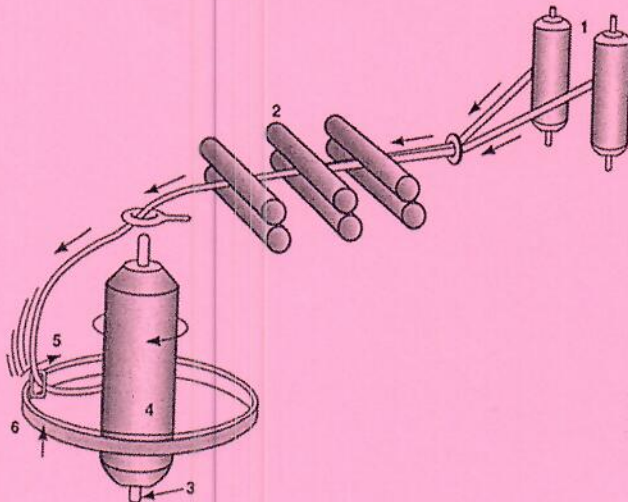
QUESTION 1 (COMPULSORY)

- Explain the knitting action of a latch hook needle in weft knitting. (12 Marks)
- The length of a fabric is 20 m. The length of a warp yarn, removed from the fabric, in straight condition is 20.8 m. Determine the crimp% in warp direction. What should be the contraction %? (10 Marks)
- Define yarn sizing (2 Marks)
- Name and briefly describe the function of any **five (5)** ingredients found in a size mix (10 Marks)
- An old spinning mill adage states that "well carded is half spun". Give **six (6)** reasons why carding is necessary before spinning can take place (6 Marks)

[TOTAL MARKS = 40]

QUESTION 2

- What are the disadvantages of using Shuttle looms for weaving? (4x2= 8 Marks)
- What is a laydown in fibre preparation for spinning (2 Marks)
- The figure below shows a ring spinning arrangement. Label and briefly describe how yarn can be formed using the shown setup (12 Marks)



- Describe **four (4)** objectives of drawing in the spinning process (8 Marks)

[TOTAL MARKS = 30]

QUESTION 3

- List and briefly describe any **five (5)** properties of woven fabrics (2x5=10 Marks)
- The African textile industry is faced with many challenges, briefly describe any **five (5)** challenges facing the African textile industry (10 Marks)

- c) Give a detailed description on how air jet yarns are formed (10 Marks)

[TOTAL MARKS = 30]

QUESTION 4

- a) With the aid of a flow diagram explain the textile supply value chain (10 Marks)
b) Briefly describe any **four (4)** modern weaving techniques (12 Marks)
c) Briefly describe the process of warping (8 Marks)

[TOTAL MARKS =30]