



**1<sup>ST</sup> SEM. 2004/2005**

**PAGE 1 OF 2**

**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN HOME ECONOMICS YEAR IV**

**COURSE CODE: TAD 406**

**TITLE OF PAPER: TEXTILE SCIENCE**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS: ANSWER THREE (3) QUESTIONS IN ALL QUESTION ONE (1) IS COMPULSORY**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

**QUESTION 1 (COMPULSORY)**

- a) Explain what is meant by "Crimp", giving detail account of its effect in woven fabric structure?
- b) During the weaving process explain how weft crimp is achieved, starting from the point of weft insertion?
- c) Calculate the loom state cloth width, if the reed width is 152 cm and the weft crimp is known to be 9%.

**QUESTION 2**

- a) What is the common definition of a textile fibre?
- b) Discuss the classification of modern textile fibres; give examples in each of the classes?

**QUESTION 3**

- a) What are the principle procedures in making a staple fibre yarn, explain?
- b) Discuss the reasons for the superiority of combed yarns over that of carded yarns?
- c) Explain the strength-twist relationship. What is the effect of fibre fineness, fibre strength, fibre length and fibre friction on optimum twist?

**QUESTION 4**

- a) Explain the main difference between weft knitting and warp knitting?
- b) Discuss the main characteristics of knitted fabrics?