1ST SEM. 2018/19

UNIVERSITY OF ESWATINI

RESIT EXAMINATION PAPER

PROGRAMME	:	BACHELOR OF SCIENCE IN TEXTILE APPAREL DESIGN AND MANAGEMENT YEAR II
COURSE CODE	:	TAD205
TITLE OF PAPER	:	TEXTILE SCIENCE
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

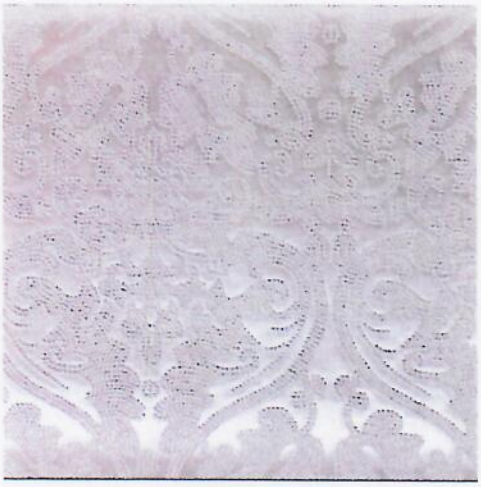
QUESTION 1 (COMPULSORY)

a) Name any **three (3)** woven fabric faults and their causes **(9 Marks)**
b) Briefly explain the main objectives of the following processes **(8 Marks)**
i) Ginning
ii) Retting
iii) Silk degumming
iv) Texturizing
c) With the aid of a diagram draw a 2*2 plain woven fabric structure and give **two (2)** fabrics that are commonly plain woven. **(5 Marks)**
d) Briefly explain any **five (5)** properties of nylon. **(10 Marks)**
e) Briefly describe the basic manufacturing principle for synthetic fibres. **(8 Marks)**

[TOTAL MARKS = 40]

QUESTION 2

a) Differentiate between warp and weft knitting **(10 Marks)**
b) Name and describe the finish used to achieve the effect on the fabric in the figure below. **(12 Marks)**



c) Name and describe the **two (2)** types of rib fabrics **(6 Marks)**
d) Name **two (2)** application areas where non-woven fabrics are used **(2 Marks)**

[TOTAL MARKS = 30]

QUESTION 3

a) Explain bio polishing of a cotton denim fabric **(5 Marks)**

b) Differentiate between water repellent and water proof fabrics using the following subheadings, and give an example of chemicals or polymers that can be used to impart each functionality. **(10 Marks)**

	Water repellent fabric	Water resistant fabric
Pores		
Water vapour permeability		
Air permeability		
Resistance to water penetration		

c) Explain why people in hot areas prefer clothing made from natural cellulosic fibres. **(5 Marks)**

d) Give a detailed description of open end yarns. **(10 Marks)**

[TOTAL MARKS = 30]

QUESTION 4

a) Discuss the properties of wool that are influenced by its structure. **(10 Marks)**

b) Explain with examples your understanding of yarn numbering systems. **(10 Marks)**

c) Discuss the importance of fibre identification. Your discussion should include examples of situations where fibre identification plays a vital role. **(10 Marks)**

[TOTAL MARKS = 30]