



2nd SEM. 2011/12

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TADM 206 (S)**

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

**PROGRAMME : BACHELOR OF SCIENCE IN
TEXTILE AND APPAREL DESIGN
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 (2) QUESTIONS**

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GRANTED BY THE CHIEF INVIGILATOR**

QUESTION 1 [COMPULSORY]

- (a) Spun yarn properties differ based on the spinning frames used in the spinning process. Explain and contrast the yarns spun from a ring spinning, open-end spinning and an air/water jet spinning frames. **2 X 9 = (18)**
- (b) The carding process is a vital process in yarn spinning. State its purpose, major forms of feeding fibres to a carder, and the three (3) common processes under carding. **(14)**
- (c) Describe the components of a fabric with the following specifications:
C20 X TC40 / 80X50 / 1X1 / 120cm **(8)**

[Total marks = 40]

QUESTION 2

- (a) Discuss the international context of the textile industry including strategies that can be used to make industry competitive. **(20)**
- (b) Non-woven fabrics can also be made from continuous filament webs. Briefly describe the two (2) kinds under this web type; include three (3) properties and three (3) uses for one of the kinds. **2 X 5 = (10)**

[Total marks = 30]

QUESTION 3

- (a) Discuss the five (5) different weave types, and include one example of a fabric name for each type. **5 X 4 = (20)**
- (b) Define the following:
i) Low twist
ii) Linear density
iii) Sizing
iv) Matt weave
v) Fabric count or sett

2 X 5 = (10)

[Total marks = 30]

QUESTION 4

- a) Sketch the weave plans of the following:
- (i) 3/3 twill
 - (ii) 1/3 twill
 - (iii) 2/2 twill
 - (iv) Z twist
 - (v) S twist
- (10)
- b) (i) Which twist is clockwise?
(ii) Which twist is anticlockwise?
(iii) Which one of the above is a balanced faced twill weave?
(iv) Which one of the above is an unbalanced faced twill weave?
- (8)
- c) Optimum size percentage on yarns depends on what?
- (4)
- d) Winding is a process involved in weaving preparation after the completion of spinning of fibres into yarns. State **four (4)** reasons why this process is vital.

(8)

[Total marks = 30]