

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF TEXTILE TECHNOLOGY

END OF SECOND SEMESTER EXAMINATIONS AUGUST 2009

TXT 4228 – TEXTILE PHYSICS

TIME: 3 HOURS

INSTRUCTIONS

Answer **ALL** Questions. Each question carries 25 marks.

USE OF DIAGRAMS FORMULAE AND/OR MODELS TO SUPPORT ALL YOUR ANSWERS.

QUESTION 1

Discuss the basic requirement for fibre formation. Make special reference to the woollen fibre (25)

QUESTION 2

Compare and contrast time dependent properties of nylon 6.6 and cotton fibres (25)

QUESTION 3

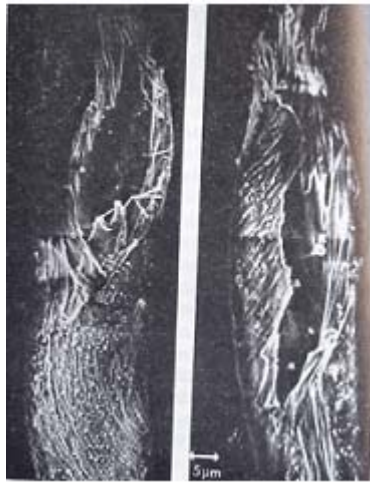
Make an assessment of the causes of each failure in Fig A to E



A



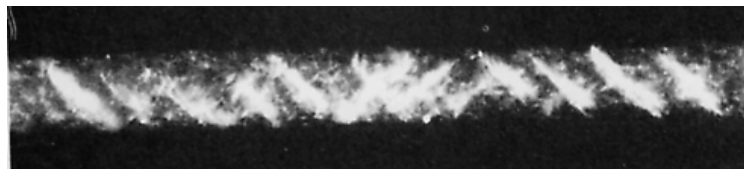
B



C



D



E

QUESTION 4

Moisture desorption and water absorption by textile materials are not identical properties. Discuss. (25)

END OF QUESTION PAPER