

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

**DEPARTMENT OF TEXTILE TECHNOLOGY
END OF SEMESTER EXAMINATIONS MAY 2008
FABRIC TECHNOLOGY I – TXT 1208
TIME: 3 HOURS**

INSTRUCTIONS

The first fifteen minutes should be spent reading the question paper and making notes

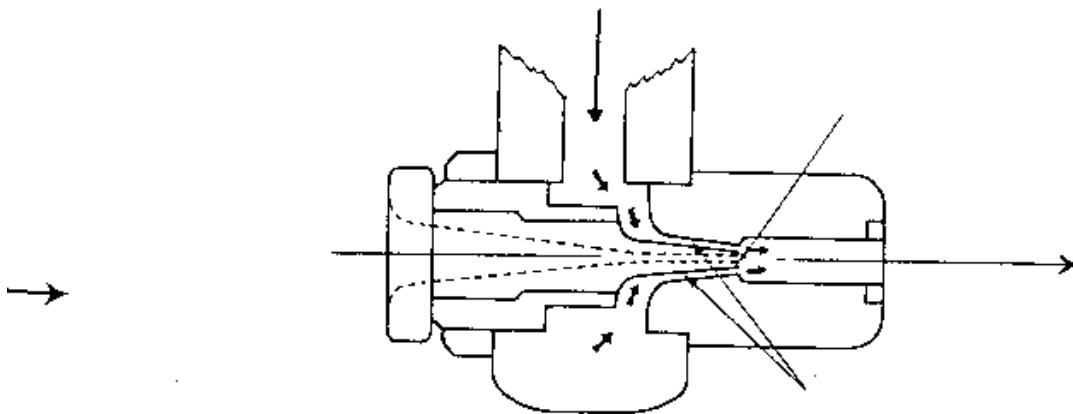
Do not open your answer sheet until told to do so.

Marks will be awarded for skill in appreciating the scope of questions, clarity of argument and conciseness of presentation as well as for the knowledge displayed by the candidate.

SECTION A

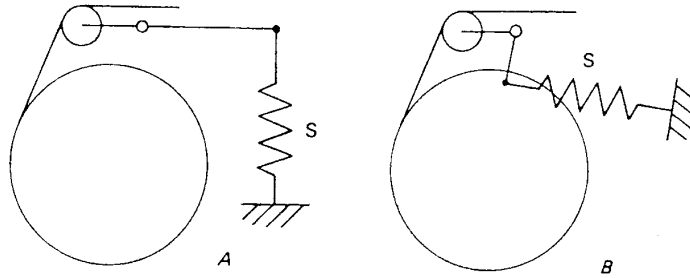
SECTION A: Answer all questions in this section

- 1 With the aid of diagrams explain the warp preparation for weaving [9]
- 2 If an order of 1000 fabrics, each 2000m long and 1.5 m wide is received, and the finished fabric's warp crimp is 8% and has 40 ends per cm. The creel of direct warping process has a maximum capacity of 500 cones. How many back beams are required and what length of warp is on each? [5]
- 3 Discuss how a lift is obtained in a Jacquard harness system [6]
- 4 a) Label the and explain figure below [6]



- b) How is weft timing achieved in the above situation? [8]

- 5 With the aid of a diagram, explain how changing pick spacing can be achieved [8]
- 6 a) Explain figures A and B below [3]



- b) When is the left-off motion referred to as controlled, negative and automatic [3]

SECTION B: ANSWER TWO QUESTIONS ONLY , ONE FROM SUBSECTION I AND THE OTHER FROM SUB SECTION II

SUBSECTION I

- 7 Use diagrams, table and formulae to explain the loom speed and all important timings [25]
- 8 Use Illustrations to compare and contrast shedding using positive and negative cams in Dobby machines [25]

SUBSECTION II

- 9 Discuss the fast reed and the loose reed protector motions [25]
- 10 Use diagrams to explain
- a) the mechanism that drives the back roller beam [10]
- b) the function of the temples [15]

END OF QUESTION PAPER