NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF TEXTILE TECHNOLOGY

END OF FIRST SEMESTER EXAMINATIONS – FEBRUARY 2010

TXT 4123 - TEXTILE PRINTING

TIME: 3HOURS

TOTAL MAKRS: 100

INSTRUCTIONS

Answer **QUESTION 1** and **ANY OTHER FOUR** questions. Each question carries 20 marks.

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.

QUESTION 1

(a) Explain or define the following:

(i) coquis
(ii) discharge agent
(iii) resist printing
(iv) real wax printing
(v) bleeder styles
(vi) burnout styles
(vii) backgrey
(viii) step-and-repeat
(ix) half tone
(x) pitch marks **(10)**

(b) Write notes on engraving processes for the following:

(i) copper roller
(ii) flat screen **(10)**

QUESTION 2

Detail an appropriate process sequence (including chemical auxiliaries and process conditions) during the transfer of a printed design from fabric sample onto a rotary screen ready for printing. **(20)**

QUESTION 3

Explain the reasons why pigment printing accounts for almost fifty percent (50%) of all printing worldwide. **(20)**

QUESTION 4

Discuss the development of ink jet printing on textiles. Outline the principles involved and consider future trends. **(20)**

QUESTION 5

Discuss the importance of the "after" printing process, paying particular attention to their contribution to the quality of the final printed product. **(20)**

QUESTION 6

Write notes on technical and economic significance of the following recent trends.

(i) the use of Laser technology in screen production
(ii) automation and computer control within the colour kitchen **(20)**

QUESTION 7

Discuss the main factors that must be taken into consideration when deciding the printing methods for fibre blends. Outline the printing of polyester/cellulosic blends. (Do not use pigments). **(20)**

END OF QUESTION PAPER