

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**DEPARTMENT OF TEXTILE TECHNOLOGY**

**FINAL EXAMINATIONS DEC 2005**

**TEXTILE PRINTING TXT 4123**

**TIME: 3HOURS**

**INSTRUCTIONS**

Answer question 1 and any four (4) other questions. All questions carry 20 marks each.  
Total marks: 100

**QUESTION 1**

Give a detailed account of the procedures and process steps that are carried out in order to transfer a design from paper and fabric sample onto the screen. (Your discussion must focus on flatbed screen and rotary screen printing systems). Also give a brief account of technological advances that have led to the speeding up of this/these procedures.

(20 marks)

**QUESTION 2**

“Whilst digital ink jet printing is a revolutionary way of imparting design to textiles it will not dislodge conventional printing methods for the foreseeable future”. Discuss

(20 marks)

**QUESTION 3**

Compare and contrast flatbed and rotary screen printing.

(20 marks)

**QUESTION 4**

Discuss the increasing importance in recent years of pigment printing. Comment on print paste formulation, choice of auxiliaries, selection of pigments and processing conditions. Indicate the circumstances under which pigments are useful alongside other dye classes.

(20 marks)

**QUESTION 5**

Critically discuss the following statement:

“the choice of thickening agent is relatively unimportant in textile printing providing that a paste of the required viscosity is obtained”.

(20marks)

**QUESTION 6**

Give an account of recent developments in colour kitchen automation with respect to printing.

(20 marks)

**QUESTION 7**

Write short accounts on the following:

- i. transfer printing.
- ii. resist printing.
- iii. fixation methods in printing.
- iv. Thickeners.

(20 marks)

**END OF QUESTION PAPER**

