



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF TEXTILE TECHNOLOGY

END OF SECOND SEMESTER EXAMINATIONS - MAY 2010

**TXT 2201- SOFTWARE ENGINEERING AND COMPUTER
PROGRAMMING**

TIME: 3 HOURS

TOTAL MARKS: 100

INSTRUCTIONS

Answer **ALL** Questions in Section A and **ANY TWO** questions in Section B.

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

QUESTION 1

Many of the newly hired programmer analysts at NUST have good technical skills, but falling short on the job because of poor communication skills, particularly writing ability. The situation is causing the Human Resources Manager to consider introducing pre-screening tests in basic writing skills, including grammar, punctuation and spelling to be a pre-requisite before employment. .

Diagnose this problem from a systems standpoint and suggest some possible solutions. **(25)**

QUESTION 2

Database Management Systems provide opportunities and advantages, but these advantages come at a price particularly concurrency protection issues.

Describe three levels of concurrency protection that might be provided in a database. **(25)**

SECTION B

QUESTION 3

Explain Software Engineering in the context of developing computer-based systems. (25)

QUESTION 4

(a) Explain the following terms:

- i. Software systems. (3)
- ii. Systems software. (3)
- iii. Application software. (3)
- iv. Development Software. (3)
- v. Software licensing issues. (3)

b. Illustrate the function of a central processing unit (CPU). (10)

QUESTION 5

Describe seven steps of the systems development life cycle. (25)

END OF QUESTION PAPER