NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

Department of Industrial Engineering

First Semester Examinations: December, 1999

Computer Applications I, TIE 2109

Time Allowed: 2 hours 30 minutes

Answer **ALL** *questions from Section A and any* **THREE** *from Section B. The marks allocated to each question are given in square brackets against the question in the right hand column.*

SECTION A (40 marks)

1. (a) Distinguish between a bit and a byte.   [3]
   (b) What does 32 MB RAM mean?   [3]

2. Distinguish between software and hardware giving two examples of each. [4]

3. (a) What is a computer virus?   [3]
   (b) Name two tools (commercial products) that are used for dealing with computer viruses.   [2]

4. Explain the following, giving an example of each:
   (a) high level programming language   [2]
   (b) middle level programming language   [2]
   (c) low level programming language   [2]

5. What does MSDOS stand for? Explain the difference between MSDOS and Windows.   [3]

6. Explain what the following MSDOS commands enable the user to do:

   (a) MD   [1]
   (b) RD   [1]
   (c) Format A: [1]
   (d) TREE   [2]
   (e) PROMPT PG   [2]
   (f) PROMPT PT   [2]

7. What is the difference between MS Excel and MS Access?   [3]

8   Define the following, explaining the difference between them:

(a)   the Internet   [2]
(b)   the World Wide Web   [2]

SECTION B (60 marks)

9.   MS Word is a word-processing application.
(a)   What does the term 'word-processing' mean?

                                                                                        [2]
(b)   Describe, briefly, how you would produce the following equation

$$y = \frac{1}{n} \sum_{i=1}^{n} \left(\overline{X} - x_i \right)^2$$

                                                                                        [4]

(c)   What does the term 'justification' mean?

                                                                                        [2]

(d)   In a text of 20 000 words the term 'university' appears twenty times.
        It is incorrectly spelt in two instances.
        (i)   Explain how you would quickly find out where the misspelt
                words were located in the text. Explain, also, how you would
                correct them.   [4]
        (ii)   If you are required to replace the word 'university' by the
                word 'college' throughout the text, how would you
                proceed?   [4]

(e)   The essay that you are writing should not be below 1000 words and
        should not exceed 1500 words.
        (i)   Explain how you would you would find out how many words
                you have written, without counting the words word by
                word.   [2]
        (ii)   The first 10 words of the essay should be emboldened and in
                italics. Explain how you would do this.   [2]

        10.(a)
        (i)   Distinguish between a workbook and a worksheet in Microsoft
                Excel.   [2]

        (ii)   How many rows and how many columns does a worksheet
                have?   [2]
        (iii)   What is the size of the default workbook in Excel v5 or Excel
                97?   [3]

(b)   Describe how you would find the sum of all the contents of the cells in a column in Excel v5 or Excel 97. Describe also how you would find sum of all the contents of cells in a row.   [3]

(c)   Explain how you would produce a line plot of one column against another in Excel v5 or Excel 97. The plot must be an embedded chart.   [5]

(d)   Explain briefly the limitations of Microsoft Excel as a database system.   [5]

11.   (a)   Distinguish between main storage and backing storage. Give three examples of backing storage, explaining, in each case, how each is used.   [6]

(b)   What does the acronym LAN stand for? What are the advantages and disadvantages of using LANs?   [6]

(c)   What is e-mail and how does it work?   [4]

(d)   What is multimedia?   [4]

12.   (a)   What is a relational database management system?   [6]

(b)   Define the following, with respect to Microsoft Access
     (i)   Tables   [3]
     (ii)   Records   [3]
     (iii)   Fields   [3]
     (iv)   Values   [3]

(c)   Name two relational database management systems (programs) other than Microsoft Access that you know.   [2]

END OF EXAMINATION