NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

Faculty of Industrial Technology

Department of Industrial and Manufacturing Engineering

COMPUTER APPLICATIONS - TIE 2109

1ST SEMESTER EXAMINATION FEBRUARY 2010

Instructions to Candidates
1. **Time Allowed**: 3 hours
2. Examination length is **3hrs**.
3. Each question carries twenty (**20**) marks and there are six (**6**) questions in total.
4. Attempt the whole of Section A and three questions from Section B.

SECTION A

QUESTION 1

a) Describe how you would create an electronic slide showing presentation that includes music. [5]
b) Write a brief but concise discussion on GUIs. [5]
c) The Web is so vast that it is useless unless one can easily locate relevant resources. Explain the current solution to this problem. [10]

QUESTION 2

a) What is a relational database? [3]
b) How would you run a query on an MS Access database? [5]
c) Suppose you have access to the database of a clothing shop. What output would you expect from these queries?
 i) SELECT Name, PhoneNumber
     FROM Accounts
     WHERE City = "Bulawayo"; [3]
ii) SELECT ProductName,
            UnitPrice*UnitsInStock AS TotalValue
     FROM Products; [3]
iii) SELECT Products.ProductName,
            Categories.CategoryName
     FROM Categories, Products
     WHERE
            Categories.CategoryID = Products.CategoryID; [3]
iv) SELECT OrderID, Sum ([UnitPrice]*[Quantity]*(1-[Discount]))
            AS Subtotal
     FROM [Order Details]
     WHERE OrderID=7400; [3]

SECTION B

QUESTION 3

a) A Process Engineer at Delta Beverages is preparing a report using MS Word. Whenever he types the word Chibuku, the word processor underlines it in red and that annoys him. How can he solve this problem? [2]

b) How do you add page numbers to an MS Word document? [2]

c) How would you check and correct spelling and grammatical errors in a 60 page MS Word document? [4]

d) Describe how you would protect an MS Word document from unauthorised access. [6]

e) Briefly explain the steps needed to create the following equation in MS Word

$$F = \pi D_p \times t \times TS \times \left[\frac{D_b}{D_p} - 0.7 \right]$$

[6]

QUESTION 4

a) What steps would you take to attach a picture on a memory stick to an email you intend to send to your friends? [6]

b) Define the following:
   i) computer virus; [2]
   ii) worm; [2]
   iii) malware; [2]
   iv) firewall. [2]

c) Discuss how you would protect your computer from malware. [6]

QUESTION 5

a) Write short notes on e-commerce. [10]

b) Write a brief but concise discussion on the World Wide Web with specific reference to the relevant terminology. [10]

QUESTION 6

a) Explain the difference between a workbook and a worksheet. [2]

b) Why is spreadsheet software so useful to engineers? [6]

c) How would you find the sum, mean, mode and median of the heights of 100 people using MS Excel? [8]

d) Define the following spreadsheet terms:
   worksheet tabs: worksheet area; cell; cell reference indicator. [4]

END OF EXAMINATION