

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS ADMINISTRATION

MAIN EXAMINATION 2006

TITLE OF PAPER: MANAGEMENT INFORMATION SYSTEMS I

DEGREE AND YEAR: DCOM III IDE

COURSE NUMBER: BA 311-1

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS:1. THIS PAPER CONSISTS OF SECTIONS (A) AND (B)

2. THE CASE STUDY SECTION (A) IS COMPULSORY

3. ANSWER ANY TWO QUESTIONS FROM SECTION B.

Note MARKS WILL BE AWARDED FOR GOOD COMMUNICATION IN ENGLISH AND FOR ORDERLY PRESENTATION OF WORK

THIS EXAMINATION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

SECTION A

Lindiwe is the personnel manager for Lindiwe Corporation. She has spent a number of years developing a series of files to help her manage the personnel function within the Corporation. Among the files developed are an employee skills inventory file, a personnel history file and an employee placement file. Last year however, the corporation hired Sipiwe as the database administrator. Lindiwe wants the management information systems department to develop a new file to help her manage her recruiting activities and to maintain data for reports to various federal agencies, when Lindiwe requests help from the department. However, Muzi the MIS director told her that she would have to clear her plans for the file with Sipiwe. Lindiwe was at first surprised then outraged. She, said to the director "What right has Sipiwe to tell me what my files should look like? I've been working on these information systems for years. Who is she to tell me what to do with my files?" Muzi said that it was the new policy for the database administrator to clear all file structures and that he had no choice. When she returned to her office Lindiwe had cooled down, then she made an appointment with Sipiwe for the afternoon to talk about the new file she wanted. When Lindiwe arrived at Sipiwe's office the personnel manager described the history of the development of her files and the need she had for the new file. She had told Sipiwe that she felt that she could handle the new file herself with the help of the MIS department. She asked Sipiwe why the new database administrator had to have anything to do with the personnel files, and why she couldn't just proceed as usual.

- A What reasons justify Sipiwe's involvement in Lindiwe's new files?
20 marks
- B If you were Sipiwe how would you approach Lindiwe? 20 marks
- C Describe the duties of a database system administrator? 10 marks

SECTION B

Answer any two (2)

Question 1

- a) List and briefly describe the components that might be included in a database management software package. 10 marks
- b) List and describe the (3) three traditional database structure models. 10 marks
- c) What is normalization? 5 marks

Question 2

A small chain of thirty bookshops owned by HM stationery currently have a manual rewards system to handle day-to-day transactions, invoicing stock control and ordering.

The shops are all situated in a geographical area of radius 150 km. The management of HM stationery believes that a computerised system is now necessary to improve the efficiency of the above operations. They also believe that distributed processing would be a better option than a centralised system.

They have engaged you as a consultant to advise them.

- a) Distributed processing requires computer networks. Outline your recommendations for the networks required for this application. 6 marks
- b) What are the advantages and disadvantages of distributed processing versus centralised processing for the proposed system? 14 marks
- c) What are the essential functions and facilities of the data dictionary system which supports a database? 5 marks

Question 3

- a) Normalise the following table into the 1NF, 2NF and 3NF

Order number, Part amount, Part number, Part description, Unit price, Supplier number, Supplier address, Order date, Delivery date, Order total, Supplier name. 20 marks

- b) What reasons would you put forward for adopting a database as a basis for an information system? 5 marks