

UNIVERSITY OF SWAZILAND

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS ADMINISTRATION

SUPPLEMENTARY EXAMINATION 2005

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

Roget College Affirmative Action Office.

Ms. Martha Radcliff is the director of Roget College's Affirmative Action Office. Radcliff's office is responsible for identifying the organization's affirmative action goals, assisting the organization in carrying out the goals, and reporting on the goals to various organization units and state and federal agencies. The reporting requirements have increased considerably in the last few years. Numerous federal and state agencies and college units require information about minority status, affirmative action goals, compliance with state and federal regulations, and similar matters for the college's clerical, professional, and teaching personnel. Each agency seems to want similar information in different formats at different times during the year. Providing these agencies with the information required has become a clerical headache.

Currently, the college maintains information about employees in payroll files and some personnel files on its mainframe. The information management systems department developed these files at the request of payroll and the personnel departments using a mainframe database management system. Radcliff and her employees use the mainframe system for a variety of applications. However, although the current mainframe database management files contain some of the data Radcliff needs for the affirmative action reports, they do not contain all the necessary data. Radcliff and her employees have been using the mainframe system to obtain what data they could, but these data were insufficient to prepare the reports needed. So Radcliff approached the management information systems department about the problem last year and was told that they were completely overwhelmed by the development of a student information system, which was already behind schedule. The administration was breathing down their necks over the student information system, and they simply would not be able to devote any resources to Radcliff's project-although they would like to. The MIS department suggested to Martha that she hire a consultant to develop the information system she needed.

As a result, Radcliff contacted an information systems consultant, Robert Ahmed. Ahmed suggested that he could develop a system for her quickly and inexpensively, although it would involve recreating some of the files that already exist on the mainframe. He proposed purchasing a microcomputer with hard disk drive and Microsoft Access, a microcomputer database management software package. He felt that he could develop a database of personal files that would provide her with all the reports that she needed with this package. He estimated that the costs would include \$2,900 for the microcomputer, \$1,000 for a laser printer, \$500 for all the software, and \$3,000 for development of the applications she required. He estimated that it would take him about one month to complete the programming for the project.

- A Radcliff has the \$8,000 in her budget to fund Ahmed's plan. Since neither Radcliff nor any member of her staff has had any experience with microcomputers, she has asked you to evaluate Ahmed's plan. Prepare a report identifying the concerns you have with Ahmed's plan and how those concerns might be reduced or eliminated. 30 marks

B Discuss the different entity relationships and give examples by drawing diagrams
20 marks

SECTION B

BA 311 -1 S

Question 1

The trends towards distributed data processing and end user computing can have a significant effect on the structure of information technology in an organization

- a) i) Analyse the advantages of centralization and decentralization of information technology to a large organization. 8 marks
- ii) Suggest some information technology activities which despite the trend towards decentralization might best be carried out centrally. 7marks
- b) i) Explain why end user computing is increasing and suggest examples of activities which end users might be responsible for . 5marks
- ii) what impact might end user computing have on the organization of the information technology function. 5 marks

Question 2

- a) What is normalization 5marks
- b) Write the following in the third normal form showing the first and second normal 20 marks

Order no	supplier name	Part amount
supplier address	Part no	Part description
order date	delivery date	Unit price
order total	Supplier no	

Question 3

- a) Explain what is meant by negative feedback. Give an example of how this principle could be used in business information systems. 8marks

- b) Spreadsheets are often construed and used by managers to help them make tactical decisions. Explain why spreadsheets are so appropriate for assisting managers to make this type of decision. 6marks

- c) Describe two possible problems that might arise in an organization where end-user are extensively using spreadsheets to make decision. Explain why spreadsheets are so appropriate for assisting managers to make this type of decision. 6marks

- d) As an information systems manager, you are concerned that the percentage of your working staff on maintenance of existing programs is growing and the percentage working on new applications is declining. How could a database environment change this trend? 5marks