

**UNIVERSITY OF SWAZILAND**

**FACULTY OF COMMERCE**

**DEPARTMENT OF BUSINESS ADMINISTRATION**

**MAIN EXAMINATION 2005**

**TITLE OF PAPER:** MANAGEMENT INFORMATION SYSTEMS I

**DEGREE AND YEAR:** DCOM III IDE

**COURSE NUMBER:** BA 311-11

**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

The Macmillan manufacturing company has a system development backlog of 52 months. Managers are very anxious to accomplish some information systems development projects and are beginning to seek the help of consultants. The information systems department headed by Richard Price does not want to lose critical projects that should be developed by MIS professionals. Richard also wants to investigate the possibility of using alternative development approaches to accomplish some of the projects. A list of some of Macmillan's projects follows. Use Gremillion and Pyburns framework to determine the best development approach for each project. Traditional development software packages, user development and prototyping are possible development alternatives.

A

A manager in the production planning department wants an information system to help branch managers determine target ending inventory levels for their respective branches distribution centers. The production planners need access to a sales history database for the past 18 months consisting of 350,000 records. Using these data they would determine sales trends for various product lines. The sales analysis information would be used to determine the target ending inventory

10 marks

B

The accounting department needs information systems to maintain records on funded government contracts. The budgets for each contract have to be updated weekly to reflect changes for manpower and equipment.

10 marks

C

The members of the corporate strategic planning department need an information system to enable them to analyse alternative capital budgeting decisions including investment in real estate, new acquisitions and new facilities.

10 marks

D

Senior management proposes developing an international order entry and billing system making it possible to enter orders and to invoice customers from all 12 district offices.

10 marks

E

The personnel office wants a computerized job application information system. These systems would make it possible to identify prospective candidates for job openings e.g. give me a list of all the job applications with MBAs in finance. In addition the personnel director wants a database of current job openings so that the criteria for selecting candidates for a particular position could be matched with the applicant data file. In this way, lists of candidates with the qualifications for each job opening could be generated automatically and used to set up interview schedules

10 marks

52

SECTION B  
BA311-2

Question 1

- a) Describe, with the aid of examples, any five tools or techniques commonly used in structured analysis and design. 20 marks
- b) Briefly discuss two methods used in investigating and documenting the current business systems. 5 marks

Question 2

- a) Two practical tasks in system implementation are testing and file conversion. Describe the stages of testing and how each stage of testing should be carried out. 8 marks
- b) Discuss the issues that arise in data conversion when moving from a current manual system to a computer system 7 marks
- c) What are the specific problems associated with the measurement of information systems cost and benefits? 10 marks

Question 3

- a) Briefly define and distinguish between:  
i Analytical and heuristic design-making  
ii Unstructured, semi-structured and structured decision 10 marks
- b) A production supervisor makes routine decisions about production schedules, makes input into purchase decision for ingredients and managers line workers.  
  
i Briefly explain why you should deny the production supervisor's request for a decision support system  
  
ii What changes in the decision making might make a DSS appropriate? 10 marks
- c) The owner of a small chain of auto accessory shops in five different towns inputs sales figures into a computer model that displays buying trends for each store. She uses her observations from visits to shops and information gained from the model to make ordering decisions for each store.  
  
i Are the ordering decisions she makes structured, semi structured or unstructured? Briefly explain the reasons for your choice and outline what product related variables are involved in the decision. 5 marks