

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF APPLIED SCIENCE
COMPUTER SCIENCE DEPARTMENT
DECEMBER 2002 EXAMINATIONS

SUBJECT: INFORMATION SYSTEMS FOR BUSINESS MANAGEMENT
CODE: SCS 6102

Instructions to candidate:

1. Answer any five [5] questions.

3 HOURS

QUESTION ONE

A very large company has many branches all over the country, with each branch, having its own point of sale terminals. Each branch, is autonomous, processing its own data and sending summarized reports to the Head Office on a weekly basis.

- i. What network topology would be ideal for this company? Explain your answer. [10]
- ii. Would satellite links have advantage over leased lines between the different branches of head office? Give your reasons for selecting one over the other. [10]

QUESTION TWO

The Electricity Supply Company has a computer-based system that assists engineers in diagnosing problems related to maintenance of their machinery. Engineers submit data about the problem and this input is compared to what is in a Database, and a diagnosis given.

- i. Is the system described above a Decision-Support System or an Expert System? Support your case with arguments. [10]
- ii. What are the differences between Expert Systems and Decision Support Systems? [10]

QUESTION THREE

An information systems auditor has written a report criticizing the measures in place to ensure the security of data in XYZ computer centre.

- i. Write a report on the threats that could trigger the loss of data in this organization as well as the measures that can be put in place to counter them? Comment on the increased use of networks and their relevance to these threats. [10]
- ii. Describe the different types of computer viruses and their characteristics. [10]

QUESTION FOUR

- i. An upcoming business person has just started running a food processing company which is to be fully automated. Give him advice on areas he could apply Information Technology (IT) to, in order to boost the organization's primary and secondary activities and gain a competitive advantage over its rivals. [10]
- ii. Explain the theory behind the value chain concept and value system. [10]

QUESTION FIVE

- i. As an IT manager you are in charge of acquiring computer resources for the company. What issues help you decide what equipment to purchase? Discuss. [10]
- ii. You have the option of buying, renting or leasing. Which option would you select. Explain your reasons for the choice of the option selected over others. [10]

QUESTION SIX

- i. 'Group Decision Support systems are supported by conferencing'. Describe the features of the different conferencing systems that you know. [10]

- ii. You are the IT manager in an organization that designs and manufactures machine parts. You are expected to put together the software that is needed by your organization. Explain the different categories of software you need, their uses and specific examples of software that fall under each of the categories. [10]

QUESTION SEVEN

- i. Your organization needs to purchase hardware. Write a report for management stating the specifications and defining the specification in terms of size of RAM, power and make of computer. [8]
- ii. Define a computer and describe its essential components. [8]
- iii. Differentiate between client-server and peer-to-peer networks. [4]

END OF QUESTION PAPER

GOOD LUCK!