

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF APPLIED SCIENCE
COMPUTER SCIENCE DEPARTMENT
DECEMBER EXAMINATIONS 2004

SUBJECT: INFORMATION SYSTEMS FOR MANAGEMENT AND BUSINESS
CODE: SCS6102

INSTRUCTION TO CANDIDATES

Answer any 5 questions
All questions carry equal marks
Total marks 100

Time: 3 hours

QUESTION ONE

- a) Being a manager of an ICT concern, identify a situation and using the Ends/Mean Analysis generate management information that is needed for the situation identified. [10]
- b) Describe the ethical aspects of software and its use. [10]

QUESTION TWO

- a) Using the critical success factors methods identify the information needs of NUST Computer Science Department from a minimum of 3 goals. [10]
- b) As a manager you are tasked with purchasing computers for your organization according to a scheme. What criteria would you be looking for? [10]

QUESTION THREE

- a) As a manager of a super-kool manufacturing firm, using the value chain concept, identify activities that fall under primary and support activities and for each of these the physical and information processing area, and suggest what ICTs can be applied to these. [10]

- b) Given that you have a motherboard, VDU, keyboard, power supply, CPU box, accessing cards for a PC, diskettes, show using a Gantt chart how you would assemble the computer and install the system within 4 hours. [10]

QUESTION FOUR

- a) As a manager of an Internet Service Provider, and following the laid down roles of management, identify your roles in such an organisation. [10]
- b) There are five forces that can affect the profitability of an organization at firm level. Define each and give an example of where ICT can be used. [10]

QUESTION FIVE

- a) Strategic Planning Information Systems are associated with certain characteristics. Identify Strategic IS and show how the system you want qualifies your system as a Strategic IS. [10]
- b) At the strategic level of an organization, how can the Internet be used for a competitive advantage? [10]

QUESTION SIX

- a) An information system is a system. Discuss? [10]
- b) Viruses are a problem at NUST. What network architecture would be more appropriate to curb this problem? Compare and contrast and with other architectures. [10]

QUESTION SEVEN

- a) A computer network to support a laboratory with 20 computers is to be introduced for the first time in Mzilikazi Primary School. Give advice to the school authorities on their total equipment needs to produce such a network, and the functionalities of each type of equipment. [10]
- b) Buying, leasing and renting hardware are options for Mzilikazi Primary School. Compare and contrast these options.

QUESTION EIGHT

- a) There are different models of e-education that can be adopted at NUST. Describe at least 3 of these in detail, giving advantages and disadvantages of each. [10]
- b) Develop an Entity Relationship Diagram for a system that keeps track of what treatments are required for which patients and the cost of treatment per week for each patient.

Patients are treated in a single ward by the doctors assigned to them. Usually each patient will be assigned a single doctor, but in rare cases they will have two.

Healthcare assistants also attend to patients. A number of these are associated with each ward. Each patient is required to take a variety of drugs a certain number of times per day and for varying lengths of time.

The system must record details concerning patient treatment and staff payment. Some staff is paid part-time and doctors and care assistants work varying amounts of time at varying rates subject to grade. [10]

END OF QUESTION PAPER



GOOD LUCK!