



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

SEPTEMBER –DECEMBER 2021

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

REGULAR PROGRAMME

CMT 403: MANAGEMENT INFORMATION SYSTEM

Date: DECEMBER 2021

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any TWO Questions

- Q1. a) Explain the term information system **[3 marks]**
- b) Explain the term “groupware” and highlight four tasks performed by the groupware **[3 marks]**
- c) A company's ability to preserve tacit knowledge that is embedded in the minds of the experienced employees can be seen as the most important criteria of successful knowledge management systems. Do you agree with this statement? Explain how this is done. **[4 marks]**
- d) Distinguish between formal and informal information systems giving a valid example of each. **[4 marks]**

e) Sisemi, a leading local commuter coach services have been in the top ranks for more than 20 years since its operations nationwide. In view of global economic turmoil which will have tremendous impact on the national economy as well, Sisemi believes that the company should be more effective in their services operations. One of the ways is to be selective in their services: destinations, frequency and resource allocation. You are the Chief Information Officer of Sisemi. With your vast knowledge of how information systems can provide critical information to assist the company to be more effective, prepare a proposal to the top management. Your proposal

should highlight what type(s) of information systems that should be implemented and describe the system(s) functions in detail. **[12 marks]**

f) A key requirement in today's business environment is the ability to communicate more effectively, both internally with the employees and externally with the trading partners and customers.

Explain the nature of the communication infrastructure required to support such a communication as stated **[4 marks]**

Q2.

a) Information systems (IS) have always been regarded as enablers for organizational transformation in ways that systems help in jobs automation, information processing and provide useful input for decision making. Discuss this statement in reference to decision making process in an organization **[10 marks]**

b) A key requirement in today's business environment is the ability to communicate more effectively, both internally with the employees and externally with the trading partners and customers.

c) Explain the nature of the communication infrastructure required to support such a communication as stated **[4 marks]**

d) Although some companies find difficulties in justifying their information systems Investment other companies reported significant benefits from their IS projects. Discuss the various techniques that an organization can use to justify an investment in information systems.

[10 marks]

Q3. Management Information Systems should facilitate decision-making at all levels of management. Each level requires information with different characteristics and with differing degree of profitability.

Required:

i) Distinguish the characteristics of information systems used for strategic planning and those used for operational control **[12 marks]**

ii) clearly explain the term information systems security and list the main goals of IS security **[8 marks]**

- Q4. a) (i) What is a group decision support system? **[3 marks]**
- (ii) State the differences between GIS and GDSS in relation as information systems “An information system does not necessarily have to rely on computers”. Comment on this statement giving a valid example **[4 Marks]**
- b) Explain any four security controls that needs to be implemented to ensure information system security during implementation **[4 marks]**
- c) Briefly explain the role of computers/information technology in an information system. **[2 Marks]**
- d) Describe the term Strategic Information Systems as used in organizations **[3marks]**
- e) Distinguish between structured and unstructured decisions. **(4 marks)**
- Q5. a) Describe the architectural components of the Management Information System. **[3 marks]**
- b) Identify and explain five principle goals of IS disaster recovery planning in an organization **[10marks]**
- c) Evaluate any three major causes of information systems failure **[6 marks]**
- d) Explain the term BPR **(1 mark)**

END