



(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR FOUR SEMESTER ONE EXAMINATIONS**

**FOR THE DEGREE OF
BACHELOR OF COMPUTER SCIENCE**

COURSE CODE : CSC 411

**COURSE TITLE : MANAGEMENT INFORMATION
SYSTEMS**

DATE: 21/06/2021 TIME: 02:00 P.M – 04 :00 P.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO

QUESTION ONE [COMPULSORY] [30 MARKS]

- a) Differentiate between the following types of IS Architectures based on purpose
- i. Conceptual and technical [2 marks]
 - ii. Application and General system [2 marks]
 - iii. Reference and Concrete [2 marks]
- b) From a business perspective, an information system is an organizational and management solution, based on information technology (IT), to a challenge posed by the environment. Justify this statement. [6 marks]
- c) Outsourcing is the business practice of hiring a party outside an organization to perform services and create goods that traditionally were performed in-house by the organization's own employees and staff. What are the advantages and disadvantages of outsourcing to an organization? [6 marks]
- d) Business organizations like Safaricom, invest heavily in information systems to achieve six strategic business objectives. State and explain three of these objectives. [5 marks]
- e) Explain the characteristics of executive support systems, identifying why these characteristics discriminate such a system from other information systems used by management. [4 marks]
- f) Information has always been an asset, since time immemorial. But the information is vulnerable to attack, to which no system is completely immune. Discuss why having an information security policy is therefore essential for any organization or individual with the need to protect data. [3 marks]

QUESTION TWO [20 MARKS]

- a) What is the difference between e-commerce and e-business? [2 marks]
- b) K2 Network operates online game sites used by about 100 people in Bungoma and Kakamega Counties. Players are allowed to enter a game for free, but must buy digital "assets" from K2, such as swords to fight dragons, if they want to be deeply involved. The games can accommodate many players at once and are played simultaneously by people in the aforementioned Counties. Discuss why it is most important to consider using collaboration software in this business venture. [6 marks]

- c) Research in intelligent systems faces numerous challenges, many of which relate to representing a dynamic physical world computationally. Discuss some of these challenges from the global perspective. **[6 marks]**
- d) Social computing is the collaborative and interactive aspect of online behaviour that can empower an organization, motivate employees and boost the business. Explain the advantages and disadvantages of Social Computing. **[6 marks]**

QUESTION THREE [20 MARKS]

- a) What is big data analytics **[2 marks]**
- b) Explain the classical five (5) "V"s characteristics of Big Data **[5 marks]**
- c) Discuss each of the following types of Big Data Analytics
- i. Descriptive Analytics **[2 marks]**
 - ii. Diagnostic Analytics **[2 marks]**
 - iii. Predictive Analytics **[2 marks]**
 - iv. Prescriptive Analytics **[2 marks]**
- d) Describe the three (3) types of broad services offered by Cloud computing platform. **[3 marks]**
- e) What are the current trends in software platforms? **[2 marks]**

QUESTION FOUR [20 MARKS]

- a) What are the problems of managing data resources in a traditional file environment and how are they solved by a database management system? **[4 marks]**
- b) What are some important database design principles? **[4 marks]**
- c) Discuss the principal tools and technologies for accessing information from databases to improve business performance and decision making? **[8 marks]**
- d) Explain why information policy, data administration, and data quality assurance are essential for managing the firm's data resources? **[4 marks]**

QUESTION FIVE [20 Marks]

- a) Why are information systems vulnerable to destruction, error, and abuse? **[3 marks]**
- b) What is the business value of security and control? **[4 marks]**
- c) A survey of Kibabii University's ICT infrastructure has identified a number of security threats and vulnerabilities. Describe some of the contributing factors to the security threat in information systems infrastructure. **[6 marks]**
- d) As a chief security Officer for your company, analyze some of the most important tools and technologies for safeguarding information resources? **[7 marks]**