



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**MAIN EXAMINATION**

**JANUARY – APRIL 2015 TRIMESTER**

**FACULTY OF SCIENCE**

**DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE**

**REGULAR PROGRAMME**

**CMT 403: INFORMATION SYSTEM MANAGEMENT**

<b>Date: APRIL 2015</b>	<b>Duration: 2 Hours</b>
<b>Instructions: Answer Question ONE and any other TWO Questions.</b>	

- Q1. a) i) Define an Information System (IS), highlighting all its components. **(5 marks)**  
ii) Distinguish Information Technology (I.T) from (I.S) **(2 marks)**
- b) i) Outline FIVE attributes of good information. **(5 marks)**  
ii) With the use of a well-labeled diagram, describe the various functional decision levels found in a typical organization. **(5 marks)**  
iii) Explain the type of a I.S used at each of the levels described above. Give a classic example of each I.S. **(6 marks)**
- c) i) Differentiate structured from unstructured types of decisions giving an example of each. **(4 marks)**  
ii) Using a suitable diagram, discuss the relationship between decision types and the level of I.S. use across the decision making levels in an organization. **(3 marks)**
- Q2. a) Differentiate a competitive force from a competitive strategy as used in business organizations. **(2 marks)**
- b) Using the Porter's Model;  
i) Describe FIVE competitive forces that face every business organization. **(10 marks)**

- ii) Explain FOUR ways in which information systems can be used to provide competitive advantages. **(8 marks)**
- Q3. a) i) State what you understand by a value chain. **(2 marks)**
- ii) Using the Kenyan tea sector as a case scenario, describe with a diagram the various value chain activities it undergoes. **(6 marks)**
- b) i) With the use of a diagram, explain the porter's value chain model. **(8 marks)**
- ii) Describe how information systems can be used to support any two of the activities found in this model. **(4 marks)**
- Q4. a) i) State your understanding of outsourcing in as far as acquiring an I.S. is concerned. **(2 marks)**
- ii) Outline TWO advantages and TWO disadvantages of I.S. outsourcing. **(4 marks)**
- iii) Describe any FOUR phases that the I.S. development process goes through. **(4 marks)**
- b) i) Define the terms business intelligence (BI) . **(2 marks)**
- ii) Explain data mining as a BI technique. **(2 marks)**
- iii) Differentiate between supervised and unsupervised data mining. **(2 marks)**
- iv) Describe any two examples of supervised data mining techniques. **(4 marks)**
- Q5. Describe the following I.S. technologies, clearly explaining three significant types of values each has added into business set-ups.
- a) Software as a service (or cloud computing)
- b) Enterprise Resource Planning (ERP) systems
- c) Social Media
- d) Electronic Commerce.
- (20 marks)**

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