



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR SCIENCE IN

ACTURIAL SCIENCE

4TH YEAR 2ND SEMESTER 2015/2016 ACADEMIC YEAR

SPECIAL RESIT

MAIN CAMPUS

COURSE CODE: SCS 437

COURSE TITLE: INFORMATION SYSTEMS APPLICATIONS

EXAM VENUE: LAB 1

STREAM: Bsc Acturial

DATE: 05/05/16

EXAM SESSION: 11.30 – 1.30PM

TIME: 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE [30 MARKS]

- a) Explain the meaning of management information systems (2 Marks)
- b) Define data warehouse and explain its importance. (4 Marks)
- c) Explain the meaning of Decision Support Systems (DSS) and explain any three benefits of DSS to a manager. (5 Marks)
- d) Explain the difference between a database and a data warehouse (4 Marks)
- e) What do you understand by the term data mining (2 Marks)
- f) Define Knowledge Management Systems (KMS) and explain the purpose of KMS (4 Marks)
- g) State and explain any three major benefits of end users developing their own DSS? (6 Marks)
- h) Explain the meaning of transaction and state the desired characteristics of transactions in a typical well designed transaction processing system. (3 marks)

QUESTION TWO [20 MARKS]

- a) Define Financial Management Information System and list any three functions of this system to the organization (5 Marks)
- b) Describe Customer Relationship Management (CRM) System and give any three reasons why organizations need CRM. (5 Marks)
- c) Cloud computing is the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. Explain any five advantages and five disadvantages of cloud computing (10 marks)

QUESTION THREE (20 MARKS)

- a) Regardless of the environment, a robust and well-defined DSS architecture should contain details about certain elements. Identify six factors that must be considered in designing a DSS architecture. (6 Marks)
- b) Describe any four skills necessary for a decision support system developer (4 Marks)
- c) The following terminologies apply to management information systems. Explain their meanings.

- i) The knowledge base (2 Marks)
- ii) Heuristic knowledge (2 Marks)
- iii) Data (2 mark)
- iv) Transaction Processing Systems (2 Marks)
- v) Executive Support Systems (2 marks)

QUESTION FOUR (20 MARKS)

- a) Describe any two Levels of a DSS Technology (2 marks)
- b) Describe the activity-based typology of decisions. Give an example of each class. (3 Marks)
- c) Clearly explain five skills that are necessary for Project Managers. (5 marks)
- d) Describe using a diagrams five dimensions that can affect both the kind of decisions and the methods to make them (10 marks)

QUESTION FIVE (20 MARKS)

- a) Identify the generalized framework for DSS success evaluation suggested by Klein and Methlie(1995) (4 Marks)
- b) Models are classified as strategic, tactical, or operational, and analytical. What is the purpose of such a classification? Give an example of each type of model. (6 Marks)
- c) Describe using a diagram the process of optimization of decisions (10 marks)