



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
DEPARTMENT OF INFORMATION SYSTEMS & TECHNOLOGY
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
INFORMATION AND COMMUNICATION TECHNOLOGY
4TH YEAR 1ST SEMESTER 2015/2016 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: ICT 3416

COURSE TITLE: KNOWLEDGE MANAGEMENT

EXAM VENUE:

STREAM: ICT

DATE:

EXAM SESSION: 2 HOURS

TIME:

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 1 [30 marks]

- a) Define the following terms
- i) Knowledge Management System (2 marks)
 - ii) Intellectual Capital (2 marks)
 - iii) Explicit knowledge (2 marks)
 - iv) Tacit knowledge (2 marks)
 - v) Knowledge Based Economy (2 marks)
- b) Define GSS and identify its benefits. (4 marks)
- c) Briefly explain how the following may be used to facilitate knowledge management? (12 marks)
- i) Collaboration software
 - ii) Management Support Systems
 - iii) Decision Support Systems
 - iv) Wikis
 - v) Blogs
 - vi) Social networking

Question 2 [20 marks]

- a) Your first job with an International IT consultant firm is to help set up a Knowledge Management System for the one of your clients in Nairobi, Kenya. You have been asked to provide a short presentation about the rationale for a knowledge management System. Identify and discuss four factors that may lead to failure of KMS and six factors that will lead to knowledge management success. (10 marks)
- b) What is a virtual world? Briefly discuss the advantages and disadvantages of providing decision support through virtual world? (10 marks)

Question 3 [20 marks]

- a) What is Artificial Intelligence (AI)? Briefly discuss any four reasons why AI is important. (10 marks)
- b) Collaboration is difficult, expensive, and yet essential for today's organizations. Computer systems help to facilitate communication and collaboration in enterprise. In class we discussed how collaboration software was used by Procter & Gamble to transform the way business is done. Discuss this case study with reference to the following: (10 marks)

- i) Brief background information
- ii) Challenges
- iii) Solutions
- iv) Results

Question 4 [20 marks]

One of the case studies discussed in class was MITRE Corporation, founded in 1958 to address the government's need to create the Semi-Automated Ground Environment (SAGE), an integrated system to defend the United States against the threat of Soviet air attacks. As a public interest company, in partnership with the government, MITRE addresses issues of critical national importance, combining systems engineering and information technology to develop innovative, viable solutions that make a difference." Frequently, this means enabling innovation, integration, and collaboration within and across public sector agencies, requiring efficient and effective knowledge management. As demand for its services increased, MITRE felt the need to better utilize its intellectual assets and started to develop KM systems. Over time, MITRE's organizational culture changed from the "culture of silos" to the "culture of sharing" as a number of successful KM initiatives and systems were developed.

- i) What problems led to MITRE's explorations of KM solutions? **(5 marks)**
- ii) Describe the benefits of MITRE's KM systems. **(5 marks)**
- iii) Explain how new Internet technologies (such as Web 2.0) can further enable the KM system at MITRE **(10 marks)**

Question 5 [20 marks]

Using a diagram discuss the relationship between Decision Support System (DSS) and Knowledge Management System (KMS). How does a DSS benefit from a KMS? **(20 marks)**