



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

**UNIVERSITY EXAMINATION FOR THE DEGREE IN BACHELOR OF
INFORMATION COMMUNICATION AND TECHNOLOGY (ICT)**

3TH YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR

COURSE CODE: ICT 3314

COURSE TITLE: ICT DIFFUSION, TRANSFER AND ADOPTION

EXAM VENUE: STREAM: (CH)

DATE: EXAM SESSION: SEP-DEC 2016

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**

SECTION A

Question #1 [30 Marks]

- a) State and explain the elements of diffusion and Identify the role of these elements in adoption of innovations.(10 marks)
- b) Differentiate between diffusion, innovation and adoption. (6 marks)
- c) Briefly describe any four types of innovation decisions (4 marks)
- d) Enumerate and explain the implication of Rogers' Stages of Innovation Decision Process (5 marks)
- e) Using a diagram describe the diffusion of innovation process and the various stages involved. (5 marks)

SECTION B

Question #2 [20 Marks]

- a) Briefly explain the difference between the various model of ICT innovations(10 marks)
 - i. Conceptual vs. Mathematical
 - ii. Focus on innovation vs. adopters
 - iii. Organizational vs. Individual
 - iv. Process vs. Outcome
 - v. Proximity vs. Network
- b) Explain the concept of adoption rates (2 marks)
- c) Discuss the factors determining the adoption rates (8 marks)

Question #3 [20 Marks]

- a) Discuss the steps involved in the adoption process? (10 marks)
- b) Explain the alternative approaches to the concept of sectorial Differential Rates of Adoption of New Technology (4 marks)
- c) Jooust would like to install a new eLearning system for distance learning, discuss any three approaches the university management would use in accessing the technology (6 marks)

Question #4 [20 Marks]

- a) Differentiate between the diffusion process and innovation-decision making (4 marks)
- b) Discuss the stages of innovation-decision making process (10 marks)
- c) Describe the contribution of the theoretical work of Everett Rogers to diffusion of innovation. (6 Marks)

Question #5 [20 Marks]

- a) Explain the concept of model of diffusion model and its three has three dimensional phases (6 Marks)
- b) List any five characteristics for the change agents in relation to technology adoption (5 marks)
- c) A change agent is an individual who influences clients' innovation decisions in a desired direction discuss any four the functions of change agents in relation to technological diffusions in organisations(4 marks)
- d) Opinion leaders are informal leaders that are able to influence others. This informal leadership is not a function of the individual's final position or status in the system, but is earned and maintained by individuals' technical competence, social accessibility, and conformity to the system's norms. describe any five approaches of identifying opinion leaders (5 marks)