



JARAMOGI OGINGA ODUNGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BUSINESS AND ECONOMICS

UNIVERSITY EXAMINATIONS: 2013/2014

SCS 416: HUMAN COMPUTER INTERACTION

KISUMU LEARNING CENTER

DATE: DECEMBER 2013

TIME: 2 HOURS

INSTRUCTIONS:

- i. This paper contains five (5) questions.
- ii. Question ONE is Compulsory and any other TWO questions
- iii. Answer the questions on the booklet provided
- iv. Mobile Phones are not allowed in exams room

Question One (COMPULSORY- 30 Marks)

- a) Describe the term paradigm shifts as used in HCI. [2mks]
- b) Explain any three applications of multi-sensory systems in the industry. [6mks]
- c) Evaluation is a central part of user centered system design. Explain four main goals of user interface evaluation [4mks]
- d) Discuss the main architectures of windowing systems. [6mks]
- e) Define the term Metaphor and describe three problems associated with metaphors.[4mks]
- f) Differentiate the term interaction mode from interaction style. [4mks]
- g) Describe at least four factors the designer of an interactive system would consider in choosing an interaction style. [4mks]

Question Two

- a) Users have different requirements for support at different times. Describe briefly Six main styles of designing user support. [6mks]
- b) Explain why implementing groupware is more difficult than single-user applications. [4mks]
- c) Explain the importance of understanding the problem space in interaction design. [2mks]
- d) Define the term Conceptual model. [2mks]
- e) Describe Four activity based conceptual models used in the design of interactive computing systems for human use. [6mks]

Question Three

- a) Giving reasons for your answers, explain why it is important to employ a discrete architecture while implementing the user interface. [6mks]
- b) Explain the importance of good interface design. [4mks]
- c) Differentiate **User Centered design philosophy from Participatory.** [4mks]
- d) Briefly describe any Six principles of user centered design. [6mks]

Question Four

- a) Explain the importance of user adapted interface design in the right of unified interface development. [4mks]
- b) Discuss **Four** costs associated with poor engineering in the design of interactive systems. [6mks]
- c) Describe any **Four** requirements of user support systems. [4mks]
- d) Explain why direct manipulation interfaces are enjoyable. [6mks]

Question Five

- a) Describe briefly **Four** evaluation techniques used to assess the implementation of the user interface of groupware systems. [6mks]
- b) The usability of your application's design is not just a philosophical nicety for your consideration. Using suitable examples, explain this statement. [4mks]
- c) Explain the main design issues user support. [4mks]
- d) Explain what an adaptive help system is and describe the issues/ problems associated with the systems [6mks]