

University of Eswatini
Department Of Computer Science
Main Examination December 2018

Title of paper : **Human Computer Interaction**

Course number : **CSC251**

Time Allowed : **Three (3) hours**

Instructions:

- **Each question carries 25 marks.**
- **Answer any four (4) questions.**

This paper may not be opened until permission has been granted by the invigilator.

QUESTION 1

- a) Describe a formal definition of HCI. [5]
- b) How do you think new, fast, high-density memory devices and quick processors have influenced recent developments in HCI? Do they make systems any easier to use? Do they expand the range of applications of computer systems? [10]
- c) Explain the following terms. [10]
 - i) GOMS
 - ii) Norman's Seven Principles

QUESTION 2

- a) Describe the goals of HCI. [8]
- b) Describe Fitts' law. How does Fitts' law change for different physical selection devices, such as a three-button mouse, a touchpad, or a pen/stylus? [7]
- c) Discuss the History and Evolution of HCI. [10]

QUESTION 3

- a) Briefly describe the human information processing model. [10]
- b) Explain Interdisciplinary nature of HCI and the relationship of Usability and quality. [15]

QUESTION 4

- a) Explain how cognitive psychology influences HCI. [8]
- b) Describe the advantages and disadvantages of different input output devices keeping in view different aspects of HCI. [10]
- c) What new paradigms do you think may be significant in the future of interactive computing? [7]

QUESTION 5

- a) Write the Shneiderman's Eight Golden Rules of Interface Design. [7]
- b) What are the factors governing the choice of an appropriate evaluation method for different interactive systems? Give brief details. [10]
- c) Compare the benefits to users of the WIMP interaction style with that of a command line interface. [8]

End of Question Paper