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GABA CAMPUS - ELDORET

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2021 TRIMESTER

FACULTY OF SCIENCE

BACHELOR OF SCIENCE

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

CMT 316: HUMAN COMPUTER INTERFACE

Date: December 2021	Duration: 2 Hours
Instructions: Answer Question ONE and any other TWO Questions	

QUESTION ONE

- a) List the limitations of GOMS model. **(4 Marks)**
- b) Describe the contribution of the following disciplines in HCI.
 - i) Ergonomics **(2 Marks)**
 - ii) Artificial Intelligence **(2 Marks)**
- c) Distinguish the following terms
 - i) System model **(11/2 Marks)**
 - ii) Mental model **(11/2 Marks)**
- d) Define the following terms
 - i) Ubiquitous computing **(2 Marks)**
 - ii) WIMP interface **(2 Marks)**
- e) Compare and contrast GUI and Web Interface Designs. **(6 Marks)**
- a) Describe George Miller's Theory of information Processing. **(5 Marks)**
- f) Outline key considerations in mobile interaction design. **(4 Marks)**

QUESTION TWO

- b) Describe the process of user centered design. **(10 Marks)**
- c) Identify the characteristics of the graphical user interface. **(7 Marks)**
- d) Discuss any two techniques of prototyping. **(3 Marks)**

QUESTION THREE

- a) Discuss the Norman model of interaction. **(8 Marks)**
- b) Discuss the impacts of a good design. **(10 Marks)**
- c) List aspects of the future of human computer interface. **(2 Marks)**

QUESTION FOUR

- a) Discuss the components of user interface. **(4 Marks)**
- b) Describe how mental models are constructed. **(6 Marks)**
- c) Discuss the human processor model. **(10 Marks)**

QUESTION FIVE

- a) Discuss three shortcomings of using toolkits. **(6 Marks)**
- b) Describe cloud computing and give two application areas. **(4 Marks)**
- c) Discuss the challenges facing mobile programmers and their possible solutions. **(10 Marks)**

END