



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWASY, JABI-ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE

2021_1 EXAMINATIONS

COURSE CODE : CIT 811

COURSE TITLE : USER INTERFACE DESIGN AND ERGONOMICS

CREDIT UNIT : 3. TIME ALLOWED : 2½ HOURS

INSTRUCTION : ANSWER QUESTIONS 1(ONE) AND ANY OTHER FOUR (4)

1. a) Explain “User Interface” with reference to **Computer science** and **Human-Computer Interaction (4 marks)**
- b) With the adoption of Object-Oriented (OO) interfaces, there has been a lot of improvements in the world of user interface design. Explain four (4) types of OO user interfaces. **(4 marks)**
- c) Explain how the best design evaluations are carried out by “watching over the user’s shoulders” **(3 marks)**
- d) Mention and briefly comment on the user interfaces that are common to various fields outside desktop computing **(3 marks)**
- e) Give brief explanations on the five (5) aspects of Ergonomics **(5 marks)**
- f) Enumerate any three (3) facts about colours **(3 marks)**

2. a) Give a suitable outline of the history of user interfaces **(3 marks)**
- b) What is a motor skill? List the types of motor skills available **(4 marks)**
- c) With the aid of a diagram show the iterative steps in prototyping **(5 marks)**

3. a) What are the goals of a User interface design? **(2 marks)**
- b) Compare between the auditory and visual image stores in relationship to “Human Image Processor” **(4 marks)**
- c) What is action analysis? Explain the types of action analysis. **(6 marks)**

4. a) What is a Graphical User Interface? **(2 marks)**
- b) Give a suitable definition of Ergonomics? **(2 marks)**
- c) What are the stages involved in task analysis? **(4 marks)**
- d) What are the most common interactions styles available? **(4 marks)**

5. a) Differentiate between batch interfaces and command line interfaces **(2 marks)**
- b) Explain any four (4) future characteristics of HCI **(6 marks)**
- c) Explain the concept of MVC as a design pattern **(4 marks)**

- 6a) Why is consistency key in user interface design? **(2 marks)**
- b) What are the benefits of ergonomics? **(6 marks)**
- c) What are the major contributions of User centered design? **(4 marks)**