



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Express Way, Jabi-Abuja**

**FACULTY OF SCIENCES**  
**July Examination 2017**

**Course Code: CIT811**

**Course Title: User Interface Design and Ergonomics**

**Credit Unit: 3**

**Time Allowed: 3 Hours**

**Total: 70 Marks**

**Instruction: Answer Question One and Any other 4 Questions**

1a What is a User Interface? **(4 marks)**

1b. List and explain any three (3) types of User Interfaces **(6 marks)**

1c. Explain User Interface Modalities and Modes **(4 marks)**

1d. Explain the term “Ergonomics and Mention three benefit of Ergonomics **(8 marks)**

2a. Write a short note on each of the following:

(i) Icons **(2 marks)**

(ii) Controls (widgets) **(2 marks)**

(iii) Menus **(2 marks)**

2b. Mention any application areas where 3-dimentional graphics can be used. **(2 marks)**

2c. List any four (4) stages involved in usability testing **(4 marks)**

3a What is Prototyping? **(3 marks)**

3b. List and Explain three different prototyping techniques **(6 marks)**

3c. Mention three fidelity types of Prototyping **(3 marks)**

4a. What is Model–View–Controller (MVC) with examples? **(4 marks)**

4b. Write short note on the following:

(i) Evaluating with the Users **(2 marks)**

(ii) Evaluating without the Users **(2 marks)**

4c. Mention any four (4) common programming languages and tools that support the implementation of MVC . **(4 marks)**

5(a) What is the meaning of the following acronyms?

(i) GUI

(ii) OIT

(iii) WUI

(iv) CHI

(v) UCD

(vi) OOUI

(vii) ZUI

**( 1 mark each)**

5(b) Identify four (4) aspects of ergonomics **(2 marks)**

5(c) Outline three (3) facts about colour **(3 marks)**

6(a) Describe the term "Heuristics" **(4 marks)**

6(b) Explain Menu Selection and list three advantages. **(6 marks)**

6(c) Outline any two Nielsen and Molich's Heuristics **(4 marks)**