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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**

**FACULTY OF SCIENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

**CIT353: Human Computer Interaction Credit Units: 2**

**Instruction**: *Answer Question (1) (25marks) and any other three questions each carrying 15 marks* **Time Allowed:**2 hrs

1a) Explain what is meant by Human Computer Interaction? ***(5marks)***

b) Mention five (5) ways in which the interactions between users and computers can be improved. ***(5marks)***

c) Inventing new techniques and comparing existing techniques using the scientific method will enhance efficient interaction techniques for common computing tasks. Enumerate ways to achieve this. ***(5 marks)***

d) Explain the concept of ‘Paradigm of Human Computer Interaction’ ***(3 marks)***

e) Discuss the execution and evaluation loop stating the loop's usefulness in the user's participation in interactive systems design. ***(7 marks)***

2) Write short notes on the following interaction style:

1. WIMP ***(8 marks)***
2. Three-dimensional interfaces ***(7 marks)***

3a) Extensively discuss Context Analysis. ***(5 marks)***

b) Briefly describe the following cognitive models

 i) Parallel design ***(5 marks)***

ii) Human processor ***(3 marks)***

c) What is meant by ‘User Interface technique’ ***(2 marks)***

4a) Enumerate the basic components of Human Computer Interaction ***(4 marks)***

b) State the stages involved in the *Donald Normans model*  ***(4 marks)***

c) With the aid of illustrative diagram, describe the process involved in the design lifecycle of a typical design pattern ***(7 marks)***

5a) Extensively discuss prototyping of interactive System designs bringing out its benefits. ***(3marks)***

b) Briefly discuss user-system interface ***(5 marks)***

c) Briefly state the major problems associated with usability specifications? ***(2 marks)***

6) Briefly describe the principles to be considered while designing a user system interface. Give relevant examples. ***(15 marks)***