NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
COMPUTER SCIENCE DEPARTMENT ᴄᴍ
2020 EXAMINATIONS

CIT 353: INTRODUCTION TO HUMAN COMPUTER INTERACTION **Credit:** 2 units
TIME ALLOWED: 2 Hours
INSTRUCTION: Answer Question 1 and any other Three (3) Questions

1(a) Define Moore's law. *(3 marks)*
  (b) Justify the validity of Moore's law in the year 2020 using related computer specifications known to you. *(4 marks)*
  (c) What are the implications of your response in (1b) on finite speed? *(3 marks)*
  (d) Identify the components of the interaction model in human computer interaction. *(3 marks)*
  (e) Explain the concept of software engineering. *(5 marks)*
  (f) Describe the activities in the software lifecycle. **(7 marks)**

2. (a) What is a pattern in human-computer interaction? *(2 marks)*
  (b) List any three (3) characteristics of a pattern. *(4 marks)*
  (c) Enumerate 2 ways of identifying aspects of a widget. *(2 marks)*
  (d) "Not every computer requires a user interface". Explain the implications of this statement in relation to computer information systems. *(4 marks)*
  (e) List any three (3) perceptual principle in display design. *(3 marks)*

3 (a) Explain briefly the following computer terms: (i) Menu (ii) Natural Language (iii) Query Interfaces (iv) Spreadsheets (v) cascading menu *(7½ marks)*
  (b) List any five (5) elements of a WIMP interface. *(2½ marks)*
  (c) State five critical issues of consideration in menu design. *(5 marks)*

4 ((a) Define design rationale. *(2 marks)*
  (b) List three (3) associated benefits of design rationale. *(3 marks)*
  (c) Write the syntax for a typical read-evaluation loop the Figure below. (5 marks)
  (d) List any five (5) Scheiderman's golden rules of design. *(5 marks)*

5(a) A facial recognition software organization intends to capture a major market segment from it's rival competitor. As an expert in the field of human computer interaction, identify a specific usability evaluation technique required in achieving the objective. Give reasons for your answer. *(6½ marks)*
  (b)For a large domain and based on your response in 3(a) above, what knowledge representation technique would you represent the knowledge gathered from prospective users? *(2 marks)*
  (c) List three (3) techniques applicable in knowledge representation. *(1½ marks)*

(d) Briefly explain stages in the design lifecycle using the Figure below . *(5 marks)*

scenarios
task analysis

what is
wanted

guidelines
principles

analysis

precise
specification

interviews
ethnography

design

implement
and deploy

what is there
vs.
what is wanted

dialogue
notations

evaluation
heuristics

prototype

architectures
documentation
help