



# Scott Christian UNIVERSITY

## SCHOOL OF PROFESSIONAL STUDIES

### BACHELOR OF INFORMATION COMMUNICATION TECHNOLOGY

#### UNIT CODE/NAME: BCT 412: HUMAN COMPUTER INTERACTION

September- December 2019/2020 End Semester Exam

- Time: 2 Hours

**Instructions: Answer Question ONE (Compulsory) and any other TWO questions.**

#### QUESTION ONE

- a) McCarthy and Wright's (2004) Technology as Experience Framework accounts for the user experience largely in terms of how it is felt by the user. McCarthy and Wright propose four core threads that make up a holistic user experience: sensual, emotional, compositional, and spatio-temporal. Explain how each thread is meant as an idea to help designers think and talk more clearly and concretely about the relationship between technology and experience. (8 Marks)
- b) Describe how the following design principles are used to determine what users should see and do when carrying out their tasks using an interactive product: visibility, feedback, constraints, consistency, and Affordance. (8 Marks)
- c) Describe the following terms as used in interactive design: (8 Marks)
  - i. Usability
  - ii. Learnability
  - iii. User-centred design
  - iv. Accessibility
- d) State any three internal cognitive frameworks that focus on mental processes. (3 Marks)
- e) State any three processes that describe cognition. (3 Marks)

#### QUESTION TWO

- a) Describe the four basic activities in the process of interaction design. (8 Marks)
- b) "Walkthroughs have been used by system developers for many years for inspecting code and the concept offers an alternative approach to heuristic evaluation for predicting users' problems without doing user testing."
  - i. Define the term walkthrough. (1 Mark)
  - ii. Differentiate between cognitive and pluralistic walkthroughs. (6 Marks)

#### QUESTION THREE

- a) "It is desirable to combine data gathering techniques for a single data gathering program; the benefit is to provide multiple perspectives. However, it can be time-consuming and costly." Using the above statement discuss any five data gathering techniques stating their use, advantages and disadvantages. (10 Marks)