



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BSIT BIT 209

COURSE TITLE: HUMAN COMPUTER INTERACTIONS

CAMPUS: ROYSAMBU

EXAM DATE: FRIDAY, 5TH APRIL 2024

TIME: 6:00PM-9:00PM

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other THREE questions in Section **B**.
- Write only your **student number** on the answer booklet provided.
- None programmable calculators permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

Section A (Compulsory)

Question One

- a) Explain, using an example, the principles of cognitive walk through. **[2 Marks]**
- b) Discuss four major principles of direct manipulation. **[4 Marks]**
- c) The focal point of Gestalt theory is the idea of "grouping," or how we tend to interpret a visual field or problem in a certain way. Discuss the four main factors that determine grouping. **[4 Marks]**

Section B (Answer any 3 Questions)

QUESTION TWO

- a) You have graduated from your University and opt to team up with two colleagues to raise funds and register a software company to start operations of software development. Discuss how you will structure your teams for maximum production and efficiency. **[4 Marks]**
- b) Discuss how the following two disciplines have contributed to HCI. **[6 marks]**
 - i. Computer science
 - ii. Linguistics

QUESTION THREE

- a) Explain any four Jacob Nielsen's Usability Heuristics principles for Commercial Web sites. **[4 Marks]**
- b) Discuss four reasons why design is difficult when building human computer interaction systems. **[6 Marks]**

QUESTION FOUR

Evaluation is concerned with gathering data about the usability of a design or product by a specified group of users for a particular activity within a specified environment or work context. There are a wide range of methods which can be used for evaluation.

- i. Explain four important things to consider regardless of the type of evaluation being done.

[4 Marks]

- ii. Discuss the typical reasons why evaluations are done. **[6 Marks]**

QUESTION FIVE

- a) There are a large number of factors which should be considered in the analysis and design of a system using HCI principles. Many of these factors interact with each other, making the analysis even more complex. Explain any four of these factors.

[4 Marks]

- b) Using an example, describe the stages of Donald Norman's model of Interaction. **[6 Marks]**

Question SIX

- a) Describe two techniques for doing Task Analysis. **[4 Marks]**

- b) Discuss three principles for the design of a Dialogue structure. **[6 Marks]**

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