



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: TUESDAY, 8TH AUGUST 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) Technological development is a major challenge of HCI design. Explain how it qualifies as a challenge. [2

Marks]

- b) Discuss two principles for the design of a Dialogue structure. [4

Marks]

- c) Describe the steps in the Usability Engineering Lifecycle. [4

Marks]

Section B (Answer any 3 Questions)

QUESTION TWO

The workstations on a particular company network are set up to allow each user to change software, menus, icons and color schemes to suit his or her own preferences. These variations make support for users difficult to manage. The network manager wants to change to a standard user interface, so that all the users will be given the same set of menus, icons and color schemes.

- i. Explain two benefits for the users of this standardized approach, other than improved support. [2

Marks]

- ii. Explain two disadvantages for the users of this standardized approach.

[2
Marks]

- iii. Discuss the resource implications for planning this standardized interface.

[6
Marks]

QUESTION THREE

- a) Explain two major principles of direct manipulation. [2

Marks]

- b) Describe two techniques for doing Task Analysis. [2

Marks]

- c) Discuss any three major goals of Human Computer Interaction. [6

Marks]

QUESTION FOUR

a) Using an example, explain two principles of cognitive walk through. **[2 Marks]**

b) Discuss any two styles of interaction between human and computer systems, stating advantages and disadvantages of each. **[4 Marks]**

c) Describe the stages in Donald Norman's model of Interaction.

[4 Marks]

QUESTION FIVE

a) 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 two important things to consider regardless of the type of evaluation being done.

[2 Marks]

ii. Discuss two typical reasons why evaluations are done. **[4 Marks]**

b) Using an example, describe the concept of Hierarchical Task Analysis (HTA).

[4 Marks]

Question SIX

You are involved in the development of a package for maintaining a database that is used for gathering and inputting information and product availability. The intended users are aged between 25 and 55 with both sexes well represented, also the average length of employment is 3 years.

a) Explain three factors to consider when recommending on the input and output device combinations best for use in the package. **[3 Marks]**

b) Describe any three actual device combinations you would recommend. Justify your answer. **[3 Marks]**

c) Discuss two problems you would expect to encounter in deciding your recommended choices for these group of users. **[4 Marks]**

-END-