

**PAN AFRICA CHRISTIAN UNIVERSITY
EXAMINATIONS PAPER**



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: BIT 209

COURSE TITLE: HUMAN COMPUTER INTERACTION

EXAM DATE: DECEMBER, 2020

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 calculator permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A

(Answer ALL questions in this section)

QUESTION ONE

This question is concerned with methods that might contribute to the design of a novel wearable device, which can provide unobtrusive cues to the user, helping them to negotiate social situations. The device is configured by the user with a web interface to an XML database that specifies many different types of social obligations and challenges that the user wishes to deal with. It also uses artificial intelligence techniques to predict appropriate actions based on the user's social media history

- a) Describe **TWO** formative empirical research methods that could contribute to the development of the novel wearable device, one that results in qualitative data, and one that results in quantitative data. For each method, describe what attributes would be expected of good quality data. **[5 marks]**
- b) Explain **TWO** summative empirical research methods that could contribute to the development of the novel wearable device, one that results in qualitative data, and one that results in quantitative data. For each method, describe what attributes would be expected of good quality data. **[5 marks]**

SECTION B (Answer Any Three (3) Questions)

QUESTION TWO

It is not surprising, therefore, to see how widely metaphors have been used in interaction design to conceptualize abstract, hard-to-imagine, and difficult-to-articulate computer-based concepts and interactions in more concrete and familiar terms and as graphical visualizations at the interface level. Describe **THREE** main ways of Metaphors and analogies **[10 Marks]**

QUESTION THREE

- a) Explain how the banks overcome the problem of providing a secure system while making the memory load easier for people wanting to use online and mobile phone banking. **[5 Marks]**

b) You arrive home after being out all night and you're starving hungry. You look in the freezer and find all that is left is a frozen pizza. The instructions on the package say heat the oven to 375°F and then place the pizza in the oven for 20 minutes. Your oven is electric. Explain how do you heat it up, and do you turn it to the specified temperature or higher. **[5 Marks]**

QUESTION FOUR

Think of a time where you enjoyed meeting up with friends to catch up in a cafe. Compare this social occasion with the experience that you have when texting with them on your smartphone. Discuss **FIVE** kinds of conversations and why they are different.

[10 Marks]

QUESTION FIVE

Most people are familiar with the "404 error" message that pops up now and again when a web page does not upload for the link they have clicked or when they have typed or pasted an incorrect URL into a browser.

a) Explain the meaning and why the number 404. **[3 Marks]**

b) Discuss if there a better way of letting users know when a link to a website is not working.

[3 Marks]

c) Justify if it's better for the web browser to say that it was sorry rather than presenting an error message. **[4 Marks]**

QUESTION SIX

Critique the following statement in a summary of one page:" What do you think happens when one person in a close-knit team does not see or hear something, or misunderstands what has been said, while the others in the group assume that person has seen, heard, or understood what has been said"

[10 Marks]