UNIVERSITY OF GHANA

B.SC INFORMATION TECHNOLOGY, FIRST SEMESTER EXAMINATIONS: 2016/2017

CSIT 303: HUMAN COMPUTER INTERACTION (3 CREDITS)

INSTRUCTION:

*Answer Any **Three** (3) Questions*

TIME ALLOWED:

TWO AND A HALF (2½) HOURS

Question 1:

A) Briefly explain the core phases of interactive system design life cycle.

[10 Marks]

B) What is a prototype in HCI? Explain why prototyping is an important activity of the interactive system design life cycle. Briefly describe the different prototyping techniques used in design life cycle and identify which stages of the design life cycle these are used and why?

[10 Marks]

Question 2:

A) Observation is a useful data gathering technique at any stage during product development. Distinguish between observations in the field and observations in a controlled environment. State the advantages and disadvantages of these two types of observation.

[10 Marks]

B) You are tasked by Stanbic Bank Ghana Ltd. to evaluate their online banking website. Briefly explain the design philosophy that will be used in your evaluation and identify

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the key features required in the website to show that it has a high degree of usability.

[10 Marks]

Question 3:

A) You have been asked to design a mobile phone that is universally accessible. Explain the design principles that can be used to guide your design.

[10 Marks]

B) What is human-centered design approach? Give four reasons why it is important to employ this approach in interactive product design life cycle.

[6 Marks]

C) You have been contacted by the IT team of LUG to design a system to control access to the computer laboratory. Briefly discuss the PACT analysis that should be considered first before the design of the system.

[4 Marks]

Question 4:

A) You have a new job at KFC East Legon Branch, and your first assignment is to design a kiosk that will allow customers to place their orders on phone call and on the internet. Your supervisor asks you how you will go about doing requirements gathering and definition for this task, and asks you to describe the two methods you are most likely to use and to explain why you think those methods are best.

[8 Marks]

B) Describe three populations of users with special needs. For each of these populations, suggest three ways current interfaces could be improved to better serve them.

[6 Marks]

C) State any three expert evaluation methods. For each of them, provide a brief description and how it can be used for software interface evaluation.

[6 Marks]

Question 5:

A) Briefly explain the four key features that can be used define accessibility of an interaction product.

[4 Marks]

B) Distinguish between Expert evaluation and Participant based evaluation in HCI. State with explanation at least two examples for each evaluation approach.

[8 Marks]

C) Iterative design processes are commonly used for interactive systems development. How

is iterative design process performed in the development? [2 Marks]

D) Why is it so important to carry out the usability evaluation as early as possible in the design process? [2 Marks]

E) Explain the differences between ethnographic observation and normal observation?

[2 Marks]

F) Explain why the creation of user scenarios is important in the design process. [2 Marks]

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