

PAN AFRICA CHRISTIAN UNIVERSITY

BACHELORS OF INFORMATION COMMUNICATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BIT 209

CAMPUS: ROYSAMBU

COURSE TITLE: HUMAN COMPUTER INTERACTIONS

EXAM DATE: DAY OF WEEK, DATE (DDTH MONTH YEAR)

TIME: START HOUR – END 00:00-00:00 HRS

INSTRUCTIONS

- This exam carry a total of SIX Questions of [10 Marks Each]
- Section One (I) is compulsory.
- Answer any 3(Three) Questions from Section Two (II)
- Read all questions carefully before attempting.

Question One - Compulsory:

Section One (I) 10 Marks.

a) Shida College allows prospective students to apply for courses using a web based form. The form contains: A picturebox, two text boxes to hold index number and name of the applicant, option buttons to select gender, a combobox to select course and a submit button. Draw the form as it would appear on a web browser. (5 marks)

b) Maji Mazuri Hospital has implemented a new human computer interface. Outline five general guidelines that the hospital could have considered when creating the interface. (5 marks)

Section Two Answer any 3 questions

QUESTION TWO [10 marks]

a) A user interface should be designed to help users form the correct productive mental model. Explain **three** factors considered when designing such interfaces. (6 marks)

b) Distinguish between *analogous* and *complementary* colours in user interface. (4 marks)

QUESTION THREE 10 Marks:

a) State the most appropriate metaphor that could be used for each of the following:

i. Graphic package;

ii. Restaurant

iii. Online shopping

iv. Media player (4 marks)

b) A new user interface lacks user support. Explain **three** user support styles that could have been included in the interface. (6 marks)

QUESTION FOUR 10 Marks:

a) Differentiate between *cognitive walkthrough* and *heuristic* evaluations as used in human computer interaction. (4 marks)

b) Jack, a system analyst designed a human computer interface for a supermarket. Explain **three** design model he could have used. (6 marks)

QUESTION FIVE 10 Marks:

- a) (i) Outline **four** pointing devices used in human computer interaction. (4 marks)
- (ii) Explain one factor a system analyst would consider when recommending a printer for use in a hospital. (2 marks)
- b) A system analyst adopted the Nielsen's heuristics to develop a user interface for hotel. Outline **four** heuristics he could have used. (4 marks)

Question SIX 10 Marks:

- a) Describe **FOUR** ways through which cognition improves human computer interaction. (4 marks)
- b) A user interface should be designed to help users form the correct productive mental model. Explain **three** factors considered when designing such interfaces. (6 marks)

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