Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019

COURSE NAME	:	HUMAN-COMPUTER INTERACTION
COURSE CODE	:	BIM 30503
PROGRAMME CODE	:	BIM / BIP
EXAMINATION DATE	:	DECEMBER 2018 / JANUARY 2019
DURATION	:	3 HOURS
INSTRUCTION	:	(A) ANSWER **ALL** QUESTIONS (B) PLEASE WRITE YOUR ANSWERS IN THIS QUESTION BOOKLET

THIS QUESTION PAPER CONSISTS OF **THIRTEEN (13)** PAGES

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Q1 (a) Define 'human factor'.

(2 marks)

(b) _____ is the human factor that affected by the distance and size of target.

(1 mark)

(c) Suggest **TWO (2)** ways on how the human factor in **Q1(b)** will be considered in designing good interface.

(4 marks)

(i)
(ii)

(d) Describe **THREE (3)** factors that will affect the performance of human factor in **Q1(b)** when interacting with the system.

(6 marks)

(i)
(ii)
(iii)

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Q2 (a) List any **THREE (3)** categories of stakeholders.

(3 marks)

(i)
(ii)
(iii)

(b) Explain **THREE (3)** categories of stakeholders in **Q2(a)**.

(6 marks)

(i)
(ii)
(iii)

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(c) Analyze **TWO (2)** stakeholders involve in each category answered in **Q2(a)** for Hotel Finder System (such as Trivago).

(6 marks)

Category 1	(i)
	(ii)
Category 2	(i)
	(ii)
Category 3	(i)
	(ii)

Q3 Given the following scenario:

Alice gets into her hotel room late and she is hungry. She wants to order room services so she opens up the guest book and sees that she can order one of three sandwiches from the menu at any time of night. So she dials the number stated in the guest book, a recording answers asking her to type in the number of the sandwich she wants. The guest book has a number code next to each sandwich so Alice type 23 into the phone key pad to order a tuna sandwich. She is then told to confirm that she wants a tuna sandwich by pressing 1. She does so and is informed that her sandwich will arrive in 10 minutes. After waiting for 10 minutes, she gets a knock at her door and a robotic trolley delivers her sandwich.

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(a) Draw a graphical hierarchical task analysis (HTA) for the sandwich ordering process.

(10 marks)

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(b) Based on the given scenario, the hotel management plans to change the sandwich ordering process from phone call to mobile technology with attractive interface as soon as possible. The automated delivery system using the robot will be remained. As Head of IT Department, you are being asked to:

(i) Suggest the best design approach that will be applied in this project. Give **ONE (1)** reason for your suggestion.

(4 marks)

(ii) Propose **THREE (3)** appropriate methods that will be combined to gather new requirements based on the design approach answered in **Q3(b)(i).**

(6 marks)

Methods	(i)
	(ii)
	(iii)

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(iii) Justify **TWO (2)** reasons for the proposed combination as answered in **Q3(b)(ii).**

(4 marks)

Justification	(i)
	(ii)

(iv) Analyze **FIVE (5)** usability requirements based on Norman's design principles that will be applied in this project.

(10 marks)

(i)
(ii)
(iii)
(iv)
(v)

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(v) Draw **THREE (3)** interface designs of the proposed mobile sandwich ordering system based on the requirement answered in **Q3(a)** and **Q3(b)(i).**

(15 marks)

(i)

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(ii)

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(iii)

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(vi) Suggest **TWO (2)** approaches of user support (user help) that can be applied in this project. Give your justification for each approach.

(6 marks)

Approach	Justification
(i)	
(ii)	

Q4 (a) Explain the goal of usability testing.

(3 marks)

(b) Justify **ONE (1)** reason why usability testing needs to be conducted in a controlled setting.

(2 marks)

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(c) List **FOUR (4)** techniques that can be used for usability testing.

(4 marks)

(i)
(ii)
(iii)
(iv)

(d) Suggest the best technique for usability testing as answered in **Q4(c)** to identify problems in the proposed user interface design based on the scenario in **Q3(b)**. Justify your answer.

(4 marks)

Technique	
Justification	

(e) Analyze **TWO (2)** possible problems that you might found after conducting usability testing using the technique as answered in **Q4(d)** for scenario in **Q3(b)**.

(4 marks)

(i)
(ii)

-END OF QUESTION-

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