



UNIVERSITI
TEKNOLOGI
PETRONAS

FINAL EXAMINATION MAY 2024 SEMESTER

COURSE : TEB2143/TFB2033 - HUMAN AND COMPUTER
INTERACTION

DATE : 2 AUGUST 2024 (FRIDAY)

TIME : 3:00 PM - 6:00 PM (3 HOURS)

INSTRUCTIONS TO CANDIDATES

1. Answer **ALL** questions in the Answer Booklet.
2. Begin **EACH** answer on a new page in the Answer Booklet.
3. Indicate clearly answers that are cancelled, if any.
4. Where applicable, show clearly steps taken in arriving at the solutions and indicate **ALL** assumptions, if any.
5. **DO NOT** open this Question Booklet until instructed.

Note :

- i. There are **SEVEN (7)** pages in this Question Booklet including the cover page
- ii. **DOUBLE-SIDED** Question Booklet.

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- 1 a. Explain how does Task Analysis help with the design of user interface.
[2 marks]
- b. Describe **THREE (3)** user requirements that can be considered when designing an ATM machine.
[6 marks]
- c. i. Describe Hierarchical Task Analysis (HTA).
[4 marks]
- ii. Construct an HTA for the goal of withdrawing money from ATM machine.
[8 marks]

2. You are the director of the Usability Lab at the Technology Research Centre. A group of visitors is coming over to the center for a visit.

a. Prepare a draft version of your briefing explaining the common activities for usability testing in the lab.

[6 marks]

b. Explain **TWO (2)** data gathering techniques to complement your testing described in **part (a)**.

[4 marks]

c. Explain to the visitors **FIVE (5)** usability goals that need to be achieved after the evaluation process.

[10 marks]

3. **FIGURE Q3** shows the home page of a gardening website.



Figure 26.9 Home page of www.canadiangardening.com (taken December 24, 2004)

FIGURE Q3

- a. Based on the design guideline for the home page of a website, critique **FOUR (4)** features of the home page shown in **FIGURE Q3** that you feel either conform or do not conform to the design guidelines. [8 marks]
- b. Explain **TWO (2)** of the Eight Golden Rules that have been violated by this in **FIGURE Q3**. [4 marks]
- c. Based on your answers in **part (a)** and **part (b)**, sketch the interface showing changes you wish to make in order to rectify those violations. [8 marks]

4. **FIGURE Q4** shows an e-commerce website called "siphawaii.com". It sells various types of products which originate from Hawaii.



Page 1



Page 2

FIGURE Q4

- a. Indicate **TWO (2)** major problems with the interface.

[2 marks]

- b. Describe **THREE (3)** guidelines concerned with the screen design and use of color.

[6 marks]

- c. Discuss **TWO (2)** reasons how a well-designed website can be characterized.

[4 marks]

- d. Sketch an improved interface for the website according to good website guidelines.

[8 marks]

5. a. Discuss **ONE (1)** reason why prototype is important. [2 marks]
- b. Differentiate the difference between low-fidelity prototyping and high-fidelity prototyping. Give an example of each. [6 marks]
- c. List **TWO (2)** pros and **TWO (2)** cons of each prototyping method. [4 marks]
- d. Illustrate your answer using **TWO (2)** methods in developing a low fidelity prototype for a mobile device aimed at guiding tourists arriving in Ipoh. [8 marks]

- END OF PAPER -

