



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2019/2020**

COURSE NAME : HUMAN-COMPUTER  
INTERACTION

COURSE CODE : BIM 30503

PROGRAMME CODE : BIM / BIP

EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

**TERBUKA**

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

- Q1**
- (a) Define human in Human-Computer Interaction (HCI). (2 marks)
  - (b) Describe **FOUR (4)** characteristics of human from HCI perspective. (8 marks)
  - (c) Differentiate between physiology, cognition and perception. (6 marks)
  - (d) Explain how the concept of recall and recognition can be applied in designing an interface. (4 marks)
- Q2**
- (a) Define metaphors. (2 marks)
  - (b) Describe **TWO (2)** benefits of using metaphors in interface design. (4 marks)
  - (c) Analyze the suitable metaphors that will be used in designing mobile application for science subject entitled “Animal Habitat” for kindergarten school. (5 marks)
  - (d) Draw **ONE (1)** main interface design based on the proposed idea in **Q2(c)**. (5 marks)
  - (e) State **TWO (2)** categories of stakeholders for the scenario in **Q2(c)**. (2 marks)
  - (f) Analyze **TWO (2)** stakeholders involve in each category answered in **Q2(e)**. (2 marks)
- Q3** Given the following scenario:
- Kuala Lumpur is an international city with many foreign visitors every year. The government would like to design a user friendly electrical train automatic ticket selling machine.
- (a) Suggest the best design approach that will be applied in this project. Give **ONE (1)** reason of your suggestion. (4 marks)
  - (b) Draw a graphical hierarchical task analysis (HTA) for the electrical train automatic ticket selling machine. (10 marks)
  - (c) Suggest **TWO (2)** data gathering methods that will be used in this project for requirement analysis. Give **ONE (1)** reason for your suggestion. (6 marks)

**TERBUKA**

- (d) Analyze **FIVE (5)** usability requirements based on Norman's design principles that will be applied in this project. (10 marks)

- Q4**
- (a) Define prototype. (3 marks)
- (b) List **TWO (2)** types of prototype. (2 marks)
- (c) State **ONE (1)** advantage of low-fidelity prototype. (2 marks)
- (d) Nowadays, a high-fidelity prototype is more preferable to be used in proposal presentation for getting a new project in industry even though the preparation is quite time consuming. Justify **ONE (1)** reason of this scenario. (3 marks)

**Q5** Questions **Q5(a)-Q5(f)** are based on the given scenario. Choose **ONLY ONE (1)** from the following:

1. Kindergarten principle who are expecting to provide more fun elements in their learning aids for the children with learning disabilities

OR

2. Rental movie club owner who want to expand his bussiness around the world and establish a fast and convenient customer experience.

- (a) Propose **ONE (1)** appropriate project title for the selected target user. (2 marks)
- (b) Draw a storyboard to illustrate any **TWO (2)** interfaces for the proposed title. (10 marks)
- (c) Suggest the best user support approach for this project. Justify your answer. (4 marks)
- (d) Suggest the best technique for usability testing if the developer has a short space of time and budget to conduct a testing in this project. Justify your answer. (4 marks)

**-END OF QUESTION -**

**TERBUKA**