

## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

## FINAL EXAMINATION (ONLINE) **SEMESTER II SESSION 2019/2020**

COURSE NAME

: PERVASIVE COMPUTING

COURSE CODE

: BIW 33403

PROGRAMME CODE : BIW

EXAMINATION DATE : JULY 2020

**DURATION** 

: 2 HOURS 30 MINUTES

INSTRUCTION

: 1. ANSWER ALL QUESTIONS

2. PLEASE MAKE SURE TO CLICK "SAVE ANSWER" BUTTON FOR SUBJECTIVE QUESTIONS. OBJECTIVE QUESTIONS ARE

SAVED AUTOMATICALLY.

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

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TERBUKA

Q1 (a) Describe **THREE** (3) benefits of using Radio Frequency Identification (RFID) network in a store product identification's application.

(6 marks)

(b) Illustrate a RFID network in Q1(a).

(4 marks)

(c) Compare and fill in appropriate answers in each of the blank spaces for Table Q1(c).

Table Q1(c)

| Technology/Factors    | Near Field<br>Communication<br>(NFC) | Bluetooth |
|-----------------------|--------------------------------------|-----------|
| Transmission Distance |                                      |           |
| Transfer Rate         |                                      |           |
| Band                  |                                      |           |
| Power Consumption     |                                      |           |
| Cost                  |                                      |           |

(10 marks)

Q2 (a) Rufayda Inc. had opportunity to develop a mobile application for student's volunteer system in UTHM.

Discuss **THREE** (3) types of data-oriented mode in a mobile data delivery for the statement above.

(6 marks)

(b) Classify the usage of an ACID approach in designing database for mobile application in **Q2(a)**.

(10 marks)



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- Q3 Classify SIX (6) functions of Wireless Session Protocol (WSP) use in implementation of Web-based Mobile Application. (12 marks)
- $\mathbf{Q4}$  Fathan Tech Sdn.Bhd. want to make a stand alone information system available for mobile access by the customers.
  - (a) Summarize **FIVE** (5) abilities of Context Modelling Language (CML) in managing information for context aware computing.

    (10 marks)
  - (b) Analyze FOUR (4) key technologies in mobile middleware that can be used in Q4 (a). (12 marks)

- END OF QUESTION

