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UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019**

COURSE NAME : PERVASIVE COMPUTING
COURSE CODE : BIW 33403
PROGRAMME : 3 BIW
EXAMINATION DATE : JUNE/JULY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

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TERBUKA

- Q1** (a) Indicate **FIVE (5)** benefits of Pervasive Computing. (5 marks)
- (b) Explain **THREE (3)** limitations of mobile computer used in the industry. (6 marks)
- (c) By using a diagram, sketch a triangle routing process of Mobile Internet Protocol (IP) work. (4 marks)
- (d) Analyze the diagram sketched in **Q1(c)**. (10 marks)

- Q2** (a) Explain **TWO (2)** main components that used to gather context related information in collection layer. (6 marks)
- (b) Prepare **THREE (3)** layers in the 3-tier architecture model to develop Pervasive Computing application. (9 marks)
- (c) Compare and fill in appropriate answers in each of the blank spaces for the following Table **Q2(c)**:

TABLE Q2(c)

Technology/Factors	Wi-Fi	Bluetooth
Communication Protocol		
Transmission Distance		
Safety		
Power Consumption		
Cost		

(10 marks)

- Q3** (a) Interpret about mobile database. (3 marks)
- (b) Produce **FIVE (5)** characteristics of push mode in data dissemination for mobile application. (10 marks)
- (c) Fathan Rufayda Berhad had opportunity to develop a mobile application for student's volunteer system in UTHM.
- Classify the usage of an ACID approach for this project. (12 marks)

- Q4** (a) Indicate **THREE (3)** main features in Wireless Application Protocol (WAP) programming implementation. (3 marks)
- (b) Identify **FIVE (5)** abilities of Context Modelling Language (CML) in managing information for context-aware computing to develop mobile web application. (10 marks)
- (c) Syarikat Ameen Technology want to make a stand alone information system available for mobile access by their customers.
- Analyze **FOUR (4)** key technologies in mobile middleware for this case. (12 marks)

- END OF QUESTION -