



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER I
SESSION 2020/2021**

COURSE NAME : MOBILE COMPUTING
COURSE CODE : DAT 20503
PROGRAMME CODE : DAT
EXAMINATION DATE : JANUARY / FEBRUARY 2021
DURATION : 2 HOURS 30 MINUTES /
INSTRUCTION : ANSWER ALL QUESTIONS.
OPEN BOOK EXAMINATION

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THIS QUESTION PAPER CONSISTS OF SIX (6) PAGES

PART A: Fill in the blanks.

- Q1 _____ is about integrating emerging types of digital mobile devices. (1 mark)
- Q2 _____ is a type of mobility when the computing technology moves along with the users. (1 mark)
- Q3 Television remote control is part of mobile computing under the category of _____ . (1 mark)
- Q4 Switching between WAP and SMS while moving to different cities can be categorized as _____ mobility (1 mark)
- Q5 The _____ can deliver data rate up to 54 *Mbit/sec*. (1 mark)
- Q6 _____ is not suitable to transfer large files due to its low connectivity. (1 mark)
- Q7 _____ mobility is when the user is able to move from one city to another and still uses the mobile technology in similar way. (1 mark)
- Q8 _____ refers to any of several protocols used in second-generation (2G) and third-generation (3G) wireless communications. (1 mark)
- Q9 _____ is to transmit and receive radio frequency signals with devices able to receive transmitted signals. (1 mark)
- Q10 Reducing the size of hardware to be used in the mobile technology is for ensuring the devices _____. (1 mark)

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PART B: Answer TRUE or FALSE

- Q11** Every project in Android Studio Developer must have an Android.xml file at the root of the project source set.
(1 mark)
- Q12** If the application in Android simulator is not working, you can use breakpoint in the Onshow Method to debug the program.
(1 mark)
- Q13** Intent Service is normally unable to handle the Intent requests.
(1 mark)
- Q14** Relative Layout is a view group that displays child views in relative positions.
(1 mark)
- Q15** The manifest file describes essential information about the applications to the Android build tools, the Android operating system, and Google Play.
(1 mark)
- Q16** MIPS is used in embedded systems such as residential gateways and routers.
(1 mark)
- Q17** Java Micro Edition is an application development platform created by Qualcomm for code division multiple access.
(1 mark)
- Q18** Online transaction is one the example of static assets attack in information security.
(1 mark)
- Q19** Eavesdropping is one of the security attack that sends signal and user data to the network before attack.
(1 mark)
- Q20** Mobile virtual private network implements through private connection with security components.
(1 mark)

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PART C: Answer all questions.

- Q21** (a) Distinguish between 2G and 5G. (4 marks)
- (b) Explain **ONE (1)** application in mobile technology that uses Voice over Internet Protocol (VoIP) as part of the communication technology in this era. (3 marks)
- (c) Explain RFID with an example used in Malaysia. (3 marks)
- Q22** (a) Discuss **TWO (2)** services that is provided by GPRS. (3 marks)
- (b) Discuss the difference between CDMA and GSM. (4 marks)
- (c) Explain Behavioral Management Middleware with appropriate example. (3 marks)
- Q23** (a) Near Field Communication is commercially being used in mobile technology. Based on your understanding, explain how does this technology provides security to the users? (4 marks)
- (b) Name **(TWO) 2** types of mobile commerce application you have used before. (2 marks)
- (c) Based on the answer given in **Q23 (b)**, explain the process of mobile commerce application you have used (2 marks)
- (d) Based on your experience, give advantages and disadvantages of using mobile commerce. (2 marks)

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- Q24** (a) COVID-19 crisis has been around for more than a year now. Apart from using various mobile commerce, explain how mobile technology has benefited your lockdown period. (2 marks)
- (b) Discuss the advantages and disadvantages of mobile technology during the lockdown period based on your own experience (8 marks)
- Q25** (a) Name **TWO (2)** types of attack in information security on mobile. (? marks)
- (b) Sketch the process of decryption in information security (6 marks)
- (c) In your opinion, what is the best way to reduce the use of hard drive in computing technology. (2 marks)
- Q26** (a) WRITE a program where for an application where if user click an image, the image disappears and a different image will appear by following the given rules:
Rules:
i. When Image 1 in Row 1 is clicked, Image 2 in Row1 will appears and vice versa.
ii. While Image 3 in Row2 is clicked, Image 4 in Row 2 will appeats and vice versa (16 marks)
- (b) WRITE a program to create a simple calculation application to add two number and displays the results as shown in **Figure Q26 (b)**. (14 marks)

-END OF QUESTIONS-

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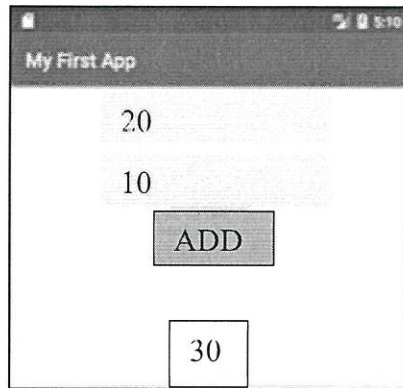


Figure Q26 (b): Application design

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