

Chapter 8: Mobile Devices

After completion of this chapter, students should be able to:

- Explain mobile device hardware
- Identify components of mobile devices
- Describe the features and characteristics of mobile operating systems
- Compare and contrast Android and iOS operating systems
- Establish Basic Network Connectivity and Configure Email on mobile devices
- Describe mobile device synchronization
- Compare and contrast methods for securing mobile devices
- Explain antivirus applications on mobile devices
- Apply the six steps of troubleshooting process to mobile devices

8.0.1 Introduction

1. What is a mobile device?

8.1 Mobile Device Hardware Overview

2. Which components are field-replaceable in most mobile devices?
3. What two mobile devices are replaceable/ upgradable on some mobile devices?
4. What can be done with obsolete mobile devices?
5. How does a capacitive touch screen work?
6. Describe the operation of a resistive touch screen
7. Which term describes the ability of a mobile device to recognize when two or more points of contact are made on the screen?

8. What is a proximity sensor and how is it used?

9. Describe the advantages of using flash memory storage in mobile devices:

1

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8.2 Mobile Operating Systems

10. Explain the difference between “open source” and closed source” IOS software, giving an example of each:

11. What are “apps”

12. What are two good sources for safely downloading Android apps?

a.

b.

13. Explain what is meant by push and pull?

14. Which company does not allow “pulling,” directly to your mobile device and why?

15. What is “side loading”?

16. What icons are on the Android system bar? (sketch and label)

17. What are Android widgets?

8.2.2.3 Lab - Working with Android

18. What are three main differences between iOS and Android interfaces?

a.

b.

c.

19. What functions can be performed with the home button on an iOS mobile device?

20. How would you access the notification area?

21. How do you move the location of an apple IOS app?

22. What is an alert badge?

8.2.3.3 Lab - Working with iOS

23. What internal device determines screen orientation?

24. What is the difference between landscape or portrait? (sketch it)

25. What setting can be changed to conserve battery power and why?

26. How do non-GPS devices determine their location?

8.2.4.3 Lab - Mobile Device Features - Android and iOS

8.2.4.4 Worksheet – Mobile Device Information

8.3 Network Connectivity and Email

27 What four precautions should you use when communicating over Wi-Fi?

a.

b.

c.

d.

8.3.1.2 Lab - Mobile Wi-Fi - Android and iOS

28 Describe the “evolution” of industry standards for cellular networks, from their origin to modern standards.

29 What mobile standards are the most common today?

30 What is Airplane Mode and why would it be useful?

31 What are uses for Bluetooth connectivity?

32 What are the two levels of Bluetooth network standards?

a.

b.

33 Explain the concept of Bluetooth pairing:

34 What are some default Bluetooth pairing pin numbers? (search this online)

35 What is the recommended Windows 7 email program from Microsoft?

36 What are the five protocols used in email?

a.

b.

c.

d.

e.

8.3.3.2 Activity - Matching Email Protocols Instructor Check _____

- 37 What type of account is used by Android devices for initial sign-in and configuration?

- 38 What type of account is used by Apple devices for initial sign-in and configuration?

- 39 What is the benefit of data synchronization across multiple devices?

- 40 How does synchronization for Apple compare to that of Android devices?

8.4 Methods for Securing Mobile Devices

- 41 Which mobile device security feature requires the user to slide a finger over the screen in a specific sequence to unlock the device?

- 42 What are two purposes of the passcode lock feature on mobile devices?
 - a.
 - b.

8.4.1.2 Lab - Passcode Locks - Android and iOS

- 43 Which two conditions must be met for mobile device security measures such as remote lock and remote wipe to function?
 - a.
 - b.

- 44 Which two items common to both Android and iOS devices can be remotely backed up?
- a.
 - b.
- 45 What is meant by rooting or jail braking and why would you want to do it?
- 46 What is meant by “bricking” your device? (you may need to look this up)
- 47 Which operating systems updates are easier Apple or Android and how?

8.5 Basic Troubleshooting Process for Mobile Devices

48 In order name the six troubleshooting processes?

A

B

C

D

E

F

49 A user accidentally drops a mobile device into a pool. What corrective action should be taken?

50 After being left in a car for many hours on a hot day, an iPhone cannot be turned on. What should the user do to fix this problem?

51 After an upgrade to a mobile device, some applications are no longer working, but some work fine. The user can make calls and send and receive email. Which two kinds of problems could be related to these issues?

52 How can you reset an iOS device?

53 Which scenario or situation would prevent a user from upgrading the OS on an Android device?

8.5.2.2 Lab – Troubleshooting Mobile Devices