Mobile Devices

Explain the basic features of mobile operating systems

1. Advanced Configuration and Power Interface (ACPI) specification provides an open standard for device configuration and power management by the operating system.

2. The specification is central to Operating System-directed configuration and Power Management (OSPM), a system implementing ACPI, which removes device management responsibilities from legacy firmware interfaces.

3. The Advanced Host Controller Interface (AHCI) is a technical standard defined by Intel that specifies the operation of Serial ATA (SATA) host bus adapters in a non-implementation-specific manner.

5. iOS 5 offers untethered updates.

6. You can see the IP address of an iOS device by going to Settings > General > Network > Wi-Fi > SSID Name > IP address

7. iTunes is a media player and media library application developed by Apple Inc. It is used to play, download, and organize digital audio and video on personal computers running the OS X operating system and the iOS-based iPod, iPhone, and iPad devices, with editions also released for Microsoft Windows.

8. iCloud is a cloud storage and cloud computing service from Apple Inc. The service allows users to store data such as music and iOS applications on remote computer servers for download to multiple devices such as iOS-based devices running iOS 5 or later, and personal computers running OS X 10.7.2 "Lion" or later, or Microsoft Windows (Windows Vista service pack 2 or later).

9. Gyroscope enables re-alignment of screen orientation as the user turns his phone.

10. The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. Most smart phones have GPS built in to the software.

Establish basic network connectivity and configure email

1. Bluetooth is widely used for communication between smart phones and other accessories or between PDAs and information kiosks. The typical coverage for Bluetooth devices is up to 30 feet.Bluetooth devices, when in discoverable mode, are able to be seen (discovered) by other bluetooth devices. If two phones connect, the phone that is trying to establish the initial connection, must be looking for a

phone that is "discoverable" otherwise it will not see it. Once the connection is saved, discoverable mode is no longer necessary, as the phones already know each other. This is only necessary during an initial link.

2. The Wireless function key typically turns on / off the wireless radio. If you inadvertantly press the function key, it is possible that you are not able to access the Internet, if using WiFi.

3. You need to know your domain name (e.g. example.com.au), email address (e.g. yourname@example.com.au) and email account password. You also need to know the POP or IMAP server name.

Compare and contrast methods for securing mobile devices

1. A cable lock is the most inexpensive solution to secure a laptop from theft. A cable lock just works the same way a bicycle lock works. It physically secures the laptop to a table or any other solid object that cannot be moved easily.

2. Setting passcodes on mobile devices is the most basic security requirement for any mobile device to be allowed into a work environment. Passcodes require the user to enter a passphrase to unlock the device. Devices can also be configured to lock automatically after a configurable timeout period. (Typically, five minutes is ideal.)

3. Privacy screen or a privacy guard protects the sensitive information on your screen while also protecting the screen itself from scratches and damage. It is useful when travelling or in public place in preventing prying eyes from seeing what´s on your laptop screen. And it´s thin enough that it still allows your laptop to close and latch.

4. A remote wipe removes all device-based data like mail, calendar, and contacts from the device, but it may not delete data stored on the device's SD card. Use this feature when a device is lost or stolen to erase all data on the device and reset the device.

Compare and contrast hardware differences in regards to tablets and laptops

1. LCD screens require a backlight system to operate, there are two backlight systems in use today

a. CCFL - Cold Cathode Fluorescent Light, is an older backlight method, which utilizes a daylight specter fluorescent tube and an inverter which powers it.

b. LED - is a backlighting system which does not use an inverter, and instead of a fluorescent tube it uses a strip of LEDs (Light Emitting Diodes).

So in essence there two types of laptop screens: LCD-CCFL and LCD-LED: these screens are NOT

INTERCHANGEABLE.

2. OLEDs do not require backlighting like LCDs. LCDs work by selectively blocking areas of the backlight to make the images that you see, while OLEDs generate light themselves. Because OLEDs do not require backlighting, they consume much less power than LCDs

3. Note that the external display is working properly and the problem is only with the internal laptop display. The most likely problem is with the inverter which powers the LCD display. Some times, an outline of an image can be viewed on a laptop screen, but it is very dim and the screen appears almost black. Such problems are almost always due to bad inverter and LCD.

4. Accelerometer measures acceleration (change of velocity) in a given direction. Mobile devices use accelerometer for screen orientation. Every modern Smartphone can change the orientation of the display based on the phone's rotation thanks to its accelerometer. Traditional accelerometers use a "seismic mass" attached to a spring encased in some sort of housing. As the device moves the mass moves on the spring and the device can measure the movement. Using multiple units a device can determine which way it turned based on which masses move.

5. Tablets normally use solid state drives. SSDs are rugged and occupy less space.