Obj 1.1 The objectives for your study of this topic include being knowledgeable in the following ways:

- What is an OS and what does it do?
- Explain the differences between software applications and operating systems and demonstrate their uses.
- Common OS features, explain each of their uses:
  - Power On/Power Off
  - Log on/log off/switch user
  - Lock/Unlock
  - Differences between common OSs
- Explain how hardware can influence the Operating System and software and vice versa.
- Software updates, security fixes, bugs, adaption to new hardware. Demonstrate how to update software, using manual and automatic settings.

Be sure that you have reviewed the rules for completing Study Guides to earn points.

What is an operating system?

List two important functions that are performed by the operating system:

1

2

List at least six common/popular operating systems, on what platform they are found, pros/cons

1

2

3

4

5

6

There are several ways that operating systems are described. What does each of these terms mean?

Real-time

Multitasking

Multiuser

Single-user

Embedded
Exiting the Computer Properly. In Windows 7 you click the Start button to access the Shut Down options. In your own words, explain the difference between these options. Give an example of when you would use each one:

Shut down

Switch user

Log off

Lock

Restart

Sleep

Hibernate

Define the following and explain the relationship; give examples of each

Software

System software

Operating system

Device drivers

System utilities

Application software
Identify major features of the Windows 7 desktop:

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<tr>
<th>NAME</th>
<th>PURPOSE</th>
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How do software and hardware work together to get work done? What could cause a conflict between hardware and software?
Describe the process of loading an application program. What is happening inside the computer? What is the relationship between the software and hardware during this process?

Windows Update (manual process):
1. Click State and then Control Panel
2. Click system and Security and then Windows Update.
3. View your update history. **When was the last update applied?** ____________ **What was the purpose of that update?**
4. In the column on the left, click Check for updates.
5. Wait for Windows to check for updates and let you know whether there are any updates available to be installed.
6. If updates are available, and IF YOU WANT TO INSTALL THEM, click Install Updates and wait for them to be installed. When the process is finished, you are informed that the updates were successfully installed.
7. It is possible that Windows will recommend that you restart your computer in order to install those updates. If that is the case, click Restart Now. Otherwise close the Windows Update window.

Automatic Windows Updates:
1. Click Start and then Control Panel
2. Click system and security and then Windows Update
3. In the column on the left, click Change Settings
4. In the important Updates section, use the drop-down arrow to view the options. There are 4 settings. Briefly explain them, and what purpose they serve.
   1) ____________
   2) ____________
   3) ____________
   4) ____________

Define these terms in your own words (give an example, explain purpose, how are they different)

**Patches:**

**Updates:**

**Service Packs:**