Ceng 328 - Quiz 1

Solve all questions.

For Tuesday section

1. (1.5 pts) In what way is an operating system like a government?

    A) It seldom functions correctly.

    B) It creates an environment within which other programs can do useful work.

    C) It performs most useful functions by itself.

    D) It is always concerned primarily with the individual's needs.

2. (1.5 pts) Which of the following would lead you to believe that a given system is an SMP-type system?

    A) Each processor is assigned a specific task.

    B) There is a master-slave relationship between the processors.

    C) Each processor performs all tasks within the operating system.

    D) None of the above.

3. (1.5 pts) A ____ is an example of a systems program.

    A) command interpreter

    B) Web browser

    C) text formatter

    D) database system

4. (1.5 pts) Policy ____

    A) determines how to do something.

    B) determines what will be done.

    C) is not likely to change across places.

    D) is not likely to change over time.

5. (4.5 pts) Explain why an operating system can be viewed as a resource allocator.

6. (4.5 pts) Describe the relationship between an API, the system-call interface, and the operating system.

For Friday section

1. (1.5 pts) _____ operating systems are designed primarily to maximize resource utilization.

   A) PC

   B) Handheld computer

   C) Mainframe

   D) Network

2. (1.5 pts) A message-passing model is _____.

   A) easier to implement than a shared memory model for intercomputer communication

   B) faster than the shared memory model

   C) a network protocol, and does not apply to operating systems

   D) only useful for small simple operating systems

3. (1.5 pts) A microkernel is a kernel _____

   A) containing many components that are optimized to reduce resident memory size

   B) that is compressed before loading in order to reduce its resident memory size

   C) that is compiled to produce the smallest size possible when stored to disk

   D) that is stripped of all nonessential components

4. (1.5 pts) _____ is a popular commercial application that abstracts Intel $80X86$ hardware into isolated virtual machines.

   A) .NET

   B) JIT

   C) JVM

   D) VMware

5. (4.5 pts) Explain why an operating system can be viewed as a resource allocator.

6. (4.5 pts) What are the advantages of using a higher-level language to implement an operating system?