Week 2

1) Multiprogramming operating systems are fairly sophisticated compared to single-program or \_\_\_\_\_\_\_\_\_ systems.

a. Multitasking

**b. Uniprogramming**

c. Scheduling

d. Time-sharing

2) The principle objective of Batch Multiprogramming is to minimize response time.

**False**

3) \_\_\_\_\_\_\_\_\_\_ is concerned with the proper verification of the identity of users and the validity of messages or data.

a. Availability

**b. Authenticity**

c. Confidentiality

d. Data integrity

4) An OS should be constructed in such a way as to permit the effective development, testing, and introduction of new system functions without interfering with service.

**True**

5) A user program executes in a \_\_\_\_\_\_\_\_\_\_ , in which certain areas of memory are protected from the user's use, and in which certain instructions may not be executed.

a. Task mode

**b. User mode**

c. Kernel mode

d. Batch mode

6) \_\_\_\_\_\_\_\_\_\_ is where the OS must prevent independent processes from interfering with each other's memory, both data and instructions.

a. Support of modular programming

b. Automatic allocation and management

c. Protection and access control

**d. Process isolation**

7) A process consists of three components: an executable program, the associated data needed by the program, and the execution context of the program.

**True**

8) The OS masks the details of the hardware from the programmer and provides the programmer with a convenient interface for using the system.

**True**

9) In a time-sharing system, a user's program is preempted at regular intervals, but due to relatively slow human reaction time this occurrence is usually transparent to the user.

**True**

10) One of the first time-sharing operating systems to be developed was the \_\_\_\_\_\_\_\_\_\_ .

a. Multiprogramming Operation System

b. Real time Transaction System

c. Multiple Access System

**d. Compatible Time-Sharing System**

11) Both batch processing and time-sharing use multiprogramming.

**True**

12) Uniprogramming typically provides better utilization of system resources than multiprogramming.

**False**

13) A special type of programming language used to provide instructions to the monitor is \_\_\_\_\_\_\_\_\_\_ .

a. DML

b. FPL

**c. JCL**

d. SML

14) Operating systems must evolve over time because:

a. Hardware must be replaced when it fails

**b. New hardware is designed and implemented in the computer system**

c. Hardware is hierarchical

d. Users will only purchase software that has a current copyright date

15) A common strategy to give each process in the queue some time in turn is referred to as a \_\_\_\_\_\_\_\_\_\_ technique.

a. Serial processing

b. Multithreading

**c. Round robin**

d. Time slicing

16) The technique where a system clock generates interrupts, and at each clock interrupt the OS regains control and assigns the processor to another user, is \_\_\_\_\_\_\_\_\_\_ .

a. Clock cycle

b. Multithreading

**c. Time slicing**

d. Round robin

17) A monolithic kernel is implemented as a single process with all elements sharing the same address space.

**True**

18) The \_\_\_\_\_\_\_\_\_\_ is the internal data by which the OS is able to supervise and control the process.

a. Executable program

b. Kernel

**c. Execution context**

d. Associated data

19) The OS frequently relinquishes control and must depend on the processor to allow it to regain control.

**True**

20) The processor itself is not a resource so the OS is not involved in determining how much of the processor time is devoted to the execution of a user program.

**False**