**1. What’s the main purpose of an operating system?**

A) To execute programs conveniently and efficiently  
B) To manage network traffic  
C) To enhance graphic design  
D) To secure user data

**Answer:** A) To execute programs conveniently and efficiently

**2. Which of the following is NOT a type of operating system?**

A) Batched OS  
B) Time Sharing OS  
C) Multi-threaded OS  
D) Real-Time OS

**Answer:** C) Multi-threaded OS

**3. What is a benefit of multithreaded programming?**

A) Increased process complexity  
B) Enhanced resource utilization  
C) Limited parallelism  
D) Reduced system security

**Answer:** B) Enhanced resource utilization

**4. Why is the operating system important?**

A) It allows users to interact with the hardware using complex programming languages  
B) It manages hardware and software, enabling user communication  
C) It solely focuses on enhancing graphical interfaces  
D) It prevents software updates

**Answer:** B) It manages hardware and software, enabling user communication

**5. What is virtual memory?**

A) A physical storage device  
B) A method to increase physical RAM  
C) A technique that allows execution of processes not completely in memory  
D) A program for enhancing CPU speed

**Answer:** C) A technique that allows execution of processes not completely in memory

**6. What is a time-sharing system?**

A) A system where processes run sequentially  
B) A system allowing multiple users to interact with programs simultaneously  
C) A single-user operating system  
D) A system limited to one process at a time

**Answer:** B) A system allowing multiple users to interact with programs simultaneously

**7. What is context switching?**

A) Moving the CPU to a different machine  
B) Switching from one program to another without saving state  
C) Saving the state of a process and loading another process's state  
D) Restarting the operating system

**Answer:** C) Saving the state of a process and loading another process's state

**8. What is deadlock in an operating system?**

A) A situation where processes are in a waiting state  
B) A situation where processes are unable to proceed due to mutual waiting  
C) A system crash  
D) A process termination

**Answer:** B) A situation where processes are unable to proceed due to mutual waiting

**9. What is demand paging?**

A) Loading all pages of a program at once  
B) Loading pages into memory only when needed  
C) A method for process termination  
D) A technique for increasing cache size

**Answer:** B) Loading pages into memory only when needed

**10. What is a kernel?**

A) The user interface of the operating system  
B) The central component managing hardware and software operations  
C) A type of user application  
D) A program for managing files

**Answer:** B) The central component managing hardware and software operations

**11. What are the advantages of a multiprocessor system?**

A) Increased throughput and resource sharing  
B) Increased complexity and higher costs  
C) Reduced reliability  
D) Limited application support

**Answer:** A) Increased throughput and resource sharing