



كلية تكنولوجيا الصناعة والطاقة

Information Technology
Department
2nd Year



جامعة برج العرب للتكنولوجيا
BORG AL ARAB TECHNOLOGICAL UNIVERSITY

جامعة برج العرب
التكنولوجية

Course: Operating System Semester: 1 st term 2025/2026.	Lecturers: Dr. Ghada Fathy
Assignment 1	

Assignment: Introduction to Operating Systems

Part 1: Multiple Choice Questions

1. Which of the following is not a basic component of a computer system?

- A. Hardware
- B. Operating System
- C. Compiler
- D. Users

2. The operating system acts as an intermediary between:

- A. User and computer hardware
- B. Application software and user
- C. Compiler and hardware
- D. CPU and memory

3. The main goal of an operating system is to:

- A. Make computer programming easier
- B. Execute user programs efficiently
- C. Manage databases
- D. Control the Internet

4. Which of the following is not a function of the operating system?

- A. Resource allocation
- B. Controlling program execution
- C. Creating hardware components
- D. Managing I/O operations

5. The program loaded at system startup is called:

- A. Kernel
- B. Bootstrap program
- C. System call
- D. Firmware



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6. A trap or exception is:

- A. A hardware failure
- B. A software-generated interrupt
- C. A user input signal
- D. A CPU instruction

7. The unit of computer storage is:

- A. Word
- B. Byte
- C. Bit
- D. Register

8. The storage device hierarchy is mainly organized based on:

- A. Cost, speed, and volatility
- B. Size, weight, and type
- C. Power usage, color, and design
- D. Manufacturer and brand

9. Which storage type is volatile?

- A. Main memory
- B. Hard disk
- C. Solid-state disk
- D. Optical disk

10. Direct Memory Access (DMA) is used to:

- A. Transfer data from CPU to cache
- B. Transfer blocks of data directly between I/O and memory
- C. Execute programs faster
- D. Access CPU instructions directly

Part 2: True / False Questions

1. The kernel is the only program that runs all the time in the computer.
2. Application programs control hardware directly.
3. Interrupts help the CPU to handle multiple tasks efficiently.



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4. A byte is the smallest unit of computer storage.
5. Caching improves system performance by storing data in slower memory first.
6. In storage hierarchy, cost per bit decreases as we move up the hierarchy.
7. The operating system is responsible for protection and security.
8. The CPU is idle during I/O wait in a single I/O request system.
9. The bootstrap program is usually stored in volatile memory.
10. A computer with 64-bit registers typically has 8-byte words.



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Name:

ID:

Group:

Model Answer

Part 1: Multiple Choice Questions

1.	
2.	
3.	
4.	
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10.	

Part 2: True / False Questions

1.	
2.	
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