

RCS214/RAP216

Homework Assignment and Take home test:

Part 1: Overview of Operating Systems

(THT)Answers Q1 &2

Questions

1. What is an operating system, and why is it important?
 2. List four key functions of an operating system.
 3. Describe two types of user interfaces provided by operating systems.
 4. Define the following:
 - a. Kernel
 - b. System Call
 5. Differentiate between system software and application software.
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Part 2: History of Operating Systems

(THT)Answers Q2 &3

Questions

1. What were the main features of first-generation operating systems?
 2. Describe the role of batch processing in the development of operating systems.
 3. How did time-sharing systems change the way computers were used?
 4. Identify two key technological advancements that influenced the evolution of operating systems.
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Part 3: Evolution of Operating Systems

(THT)Answers any two from the following

Questions

1. Explain how second-generation operating systems improved upon first-generation systems.
 2. What are the distinguishing features of third-generation operating systems?
 3. How did fourth-generation operating systems adapt to the rise of personal computers?
 4. Discuss the influence of networking on modern operating systems.
 5. Compare and contrast traditional operating systems with modern mobile operating systems.
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Part 4: Process Management

(THT)Answers Q2 and any two from the following

Questions

1. What is a process, and how is it different from a program?
2. Explain the concept of process states.
3. Define the role of the Process Control Block (PCB).
4. What is the purpose of process scheduling?
5. List and briefly explain three types of schedulers in operating systems.
6. What is context switching, and why is it necessary?
7. Describe two types of Inter-Process Communication (IPC) mechanisms.

Part 5: Essay questions (THT)

Write a short essay (200–300 words) on how the evolution of operating systems has impacted the accessibility and usability of computers for everyday users.