

Arybhatta college

BTech 3 year (5 semester) 2024

Midterm Exam

Subject: OPERATING SYSTEM

Part - 1: Word limit 20 words (Attempt all) 2 marks questions

1. Define paging in memory management.
2. What is context switching in process management?
3. What is the purpose of virtual memory?
4. What is thrashing in memory management?
5. What is the role of CPU scheduling?

Part - 2: Word limit 60 words (Attempt any two) 4 marks questions

1. Describe the architecture of the JVM.
2. Define virtual memory. Discuss the advantages and disadvantages of virtual memory.
3. What are the advantages of multithreading in Java?
4. Define multithreading. What are its advantages in process scheduling?

Part - 3: Word limit 120 words (Attempt any two) 6 marks questions

1. What are semaphores? Discuss their role in process synchronization with an example.
2. What is paging? Explain with a diagram how paging works in memory management.
3. Explain the concept of critical section and mutual exclusion in operating systems.