

**SHRI GNANAMBICA DEGREE COLLEGE: MADANAPALLE
(AUTONOMOUS)**

Subject: OPERATING SYSTEMS

SEMESTER -III

Program: BSC(CS)

Question Bank

UNIT-1

Long answer questions:

- 1.Explain the functions of OS?
- 2.Explain batch and Multi programming operating systems with advantages and disadvantages?
3. Explain Operating Systems for Personal Computers and workstations?
4. Explain Operating Systems for hand held devices in detail?
- 5.Explain Process Control in detail?

Short answers

- 1.What is operating system?
2. Describe the history and evolution of Operating Systems?
3. What is resource abstraction in an Operating System?
- 4.Explain Real-Time Operating System (RTOS)?
- 5.Explain android OS?

UNIT-2

Long answer questions

- 1.Explain Processor and User Modes in detail?
2. Explain System Calls and System Programs in detail?
- 3.What is a Thread?Explain in detail?
- 4.Explain pre-emptive scheduling algorithms in detail?
- 5.Explain FCFS and SJF algorithms in detail?

Short answers

- 1.What is a kernel?
- 2.What is process abstraction?
3. What is Process Hierarchy?
4. Difference between process and Threads?
5. What is Process Scheduling in OS?
- 6.Explain Round robin scheduling algorithm?

UNIT-3

Long answer questions

- 1.What is a deadlock? Explain necessary conditions to occur deadlock?
- 2.Explain deadlock avoidance in detail?
- 3.Explain critical section problem in detail?
- 4.Explain semaphores in detail?
- 5.Explain inter process communication in detail?

Short answers

1. What is Deadlock prevention?
2. What is deadlock detection?
3. What is Process Synchronization?
4. Explain Producer-Consumer problem?
5. Explain Deadlock Characterization?

UNIT-4

Long answer questions

1. Explain Physical and Virtual Address Space in detail?
2. Explain Memory Allocation Strategies in detail?
3. What is paging?
4. What is segmentation?
5. Explain page replacement algorithms in detail?

Short answers

1. What is Physical address space?
2. What is Fixed size Partitions?
3. What is virtual memory?
4. What is demand paging?
5. Explain FCFS page replacement algorithm?

UNIT-5

Long answer questions

1. Explain Directory Structure in detail?
2. Explain File Operations in detail?
3. Explain File Allocation Methods in detail?
4. Explain device management in OS?
5. Explain disk scheduling algorithms in detail?

Short answers

1. What is buffer?
2. What is pipe?
3. What is a shared memory?
4. SCAN disk scheduling algorithm?
5. File modes?