Assignments

UNIT: 1

1 what is Operating System ? List-out Types of OS & Explain each OS in brief.

2 Explain the need of Operating System.

3 Differentiate : User-view of OS v/s System-view of OS.

4 Explain services of OS.

5 Differentiate : Linux OS v/s Windows-XP OS.

UNIT: 2

1. What is process? Compare CPU bound process and I/O bound process.
2. Explain process life cycle.
3. List types of scheduler. Explain Long term schedulers.
4. Explain necessary conditions for deadlocks to occur.
5. Explain deadlocks and solution to remove deadlocks.
6. Explain Round Robin scheduling (time slice scheduling) algorithm with example.
7. Explain FCFS (first come first served)
8. Explain SRTN (shortest remaining time next) algorithm.
9. Explain priority scheduling.
10. Define following :-

(A) Race condition (B) IPC

(C) Semaphore (D) Mutual exclusion

(E) Scheduler (F) Scheduling

UNIT: 3

1 Give the difference between Logical address and physical address.

2 Write a short note on : 1) Static Memory Allocation

2) Dynamic Memory Allocation

3 Explain Memory Protection & Memory Relocation.

4 Write a short note on : Fragmentation with Types.

5 Write a short note on : 1) Paging

2) Segmentation

6 Write a short note on : 1) Swapping

2) Virtual Memory with Demand Paging

UNIT: 4

1 Explain File Operation in detail.

2 Explain directory structure of OS

3 Write and explain non-contiguous disk allocation method.

4 Write and explain File paths in detail.

5 Write a short note on : Physical structure of disk with Addressing.

Question Bank

❖ Following are 2 Marks questions.

1. What is OS?
2. List out the type of OS.
3. List out the services of OS.
4. List out the components of computer system.
5. Difference between program and process.
6. List out scheduling algorithms.
7. What is race condition.
8. What is dead lock.
9. Explain inter process communication.
10. What is memory relocation and protection.
11. Define swapping.
12. What is fragmentation.
13. Define virtual memory.
14. Define logical address and physical address.
15. List out file operations.
16. List out disk space allocation methods.

❖ Following are 3 or 4 Marks questions.

1. List-out Types of OS & Explain each OS in brief.
2. Explain services of OS.
3. Explain following Algorithms.
    a. FCFS
    b. RR
    c. SJF
    d. SRTN
4. What is process? Compare CPU bound process and I/O bound process.
5. Explain process life cycle.
6. List types of scheduler. Explain Long term schedulers.

7. Explain necessary conditions for deadlocks to occur.
8. Explain deadlocks and solution to remove deadlocks.
9. Explain Round Robin scheduling (time slice scheduling) algorithm with example.
10. Explain FCFS (first come first served)
11. Explain SRTN (shortest remaining time next) algorithm.
12. Explain priority scheduling.
13. Define following :-
14. Explain Race condition and Mutual exclusion
15. Give the difference between Logical address and physical address.
16. Write a short note on : 1) Static Memory Allocation

    2) Dynamic Memory Allocation
17. Explain Memory Protection & Memory Relocation.
18. Write a short note on : Fragmentation with Types.
19. Write a short note on : 1) Paging

    2) Segmentation
20. Write a short note on : 1) Swapping

    2) Virtual Memory with Demand Paging
21. Explain File Operation in detail.
22. Explain directory structure of OS
23. Write and explain non-contiguous disk allocation method.
24. Write and explain File paths in detail.
25. Write a short note on : Physical structure of disk with Addressing.
26. Explain following commands with examples

    (a) cal
    (b) cat

(c) grep
(d) sort
(e) rm
(f) head
(g) cmp
(h) diff
(i) wc
(j) cut
(k) paste
(l) chmod

27. Create shell script.

(a) Palindrome
(b) Fibonacci series
(c) Reverse number/reverse string
(d) Odd/even
(e) Maximum out of 3