QUESTION BANK OF OPERATING SYSTEM

CHAPTER 1

1. Explain Batch Monitoring functions.
2. What is multitasking operating system? State advantages of multitasking operating system.
3. What are the parts of Computer system? Explain with the help of diagram.
4. Describe multitasking and multiprogramming.
5. Describe real time systems. State any two examples of its applications.
6. Explain batch processing operating system.
7. Define operating system. State the different types of operating system.
8. Explain the multiprocessor systems concept.
9. List different types of O.S explain spooling.
10. Explain distributed system in detail.
11. List any four functions of operating system.
12. Differentiate between multiprogramming and multitasking os.
13. Describe evolution of operating system.

CHAPTER 2

1. State and explain six major components of system
2. Draw and explain monolithic structure of OS.
3. What is system call? Explain types of system calls.
4. What are the steps involved in booting?
5. Write any four services provided by operating system .
6. What is process ? How is it different from a program?
7. Describe device management of operating system.
8. Describe layered approach to system design. Also write its advantages and disadvantages.
9. What are the different responsibilities of memory management?
10. What is process management? State four functions to be performed by os for process management.
11. What is the purpose of system calls? State two system calls with its functions.
12. Explain following operating system structure in detail.
13. Monolithic 2) Microkernel
14. Explain system booting in detail.
15. Enlist any four system calls related with process management.
16. Describe file management. Enlist the system calls for file management.

CHAPTER 3

1. What are the benefits of multithreading.
2. Explain process management in detail.
3. State and explain multithreading models with diagram.
4. Draw and explain process control block in detail.
5. Describe various operations of process.
6. What is process? How is it different from a program?
7. Draw process state diagram and state its meaning.
8. Write difference between short term medium and long term scheduling.
9. Write in brief about threading and list its advantages.
10. Explain the two techniques for the interprocesss communication.
11. What is a thread? Explain many to many threading model with sample diagram.
12. State the meaning of scheduler .explain any one type of scheduler in details?
13. Explain process termination in detail.
14. Describe the terms:
15. Scheduling queues II) scheduler iii)context switch
16. Explain one to one multithreading model of operating system .

CHAPTER 4

1. What is deadlock? What are the conditions for deadlocking?
2. State and explain criteria in CPU/process scheduling.
3. Explain direct methods of deadlock preventions in detail.
4. What are FCFS algorithms? Explain with example.
5. Explain multiprocessor system in detail.
6. Explain resource request algorithm with example.
7. What is pre-emptive and non-pre-emptive scheduling?
8. Describe the round robin algorithm with suitable example.
9. Describe the shortest job first scheduling method .illustrate with example.
10. Solve the following problem by using scheduling algorithm.

|  |  |
| --- | --- |
| Process | Burst time |
| P1 | 5 |
| P2 | 15 |
| P3 | 12 |
| P4 | 25 |
| P5 | 5 |

1. SJF 2) FCFS

11. What is dead lock? State methods /techniques to handle the deadlock.

12. Compare the FCFS and SJF scheduling algorithms with respect to following:

i) turnaround time II) waiting time III) through put

13. Describe CPU and I/O burst cycle.

14. Explain Bankers’ algorithms for deadlock prevention.

15. Explain the concept of mutual exclusion in detail.

16. Explain Multilevel Feedback-Queue scheduling algorithm in detail.

17. thejobs are scheduled for execution as follows.solvve the problem by using preemptive SJF.find average waiting time using Gantt Chart.

|  |  |  |
| --- | --- | --- |
| Process | Arrival Time | Burst Time |
| P1 | 0 | 8 |
| P2 | 1 | 4 |
| P3 | 2 | 9 |
| P4 | 3 | 5 |

Chapter 5

1. Explain concept of virtual memory in detail with example.
2. Explain page replacement algorithms with their advantages and disadvantages.
3. Explain following memory allocation methods contiguous, linked Indexed. State its any two merits and demerits..
4. Explain static dynamic memory partitioning with advantages and drawbacks.
5. State the rules for naming files .How is file security achieved?
6. Describe sequential and direct access methods.
7. State four techniques for the page replacement.
8. What is swapping? When it is used?
9. Compare the paging and segmentation memory management techniques.
10. Explain the least recently used page replacement algorithm used in memory management.
11. Explain the six file operations performed by the os for disk file.
12. Explain FIFO page replacement algorithms for the reference string 7 0 1 2 0 3 0 4 2 3 1 0 3 .list draw back.
13. What is swapping? When it is used?
14. What is partitioning? With neat diagram explain various memory portioning technique. Also state its advantages.
15. Explain any two page replacement algorithm with their advantages.
16. What are different free space management techniques? Describe any one in detail?
17. What are different file allocation methods? Explain any one in detail with example.