

United College of Engineering & Management
Department of Computer Science & Engineering
Subject: Operating System (KCS 401)
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Year/Sem: 2nd Year/4th Sem

Unit- 5

1. Define seek time and rotational latency. [2, 2018-19]
2. Describe schemes for defining logical structure of directory. [10, 2014-15]
3. Define SCAN and C-SCAN scheduling algorithm. [2, 2018-19]
4. Discuss disk scheduling algorithm with examples. [10, 2014-15]
5. What do you mean by caching, spooling and error handling? Explain in detail. Explain FCFS, SCAN & C-SCAN scheduling with example. [15, 2016-14]
6. Write short notes on:- [7, 2017-18]
 - (i) I/O Buffering
 - (ii) Disk Storage and Scheduling
7. What are files and explain the access methods for files. [7, 2018-19]
8. Discuss the Linked, Contiguous and Index file allocation schemes. Which allocation scheme will minimize the amount of space required in directory structure and why? [7, 2017-18]
9. Write short notes on:-
 - (i) File System Protection and security
 - (ii) Linked File allocation methods
10. Explain the following methods:- [10, 2015-16]
 - (i) Bit Vector
 - (ii) Linked list
 - (iii) Grouping
 - (iv) Counting
11. What is directory? Explain any two ways to implement the directory. [15, 2015-16]
12. Write short notes on:- [15, 2015-16]
 - (i) I/O Buffering
 - (ii) Sequential File
 - (iii) Indexed File

13. Explain the File organization and Access mechanism.

[7, 2016-17]

14. A hard disk having 2000 cylinders, numbered from 0 to 1999. The drive is currently serving the request at cylinder 143 and the previous request was at 125. The status of the queue is as follows:-

86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130

What is the total distance (in cylinder) that the disk arm moves to satisfy the entire pending request for each of the following disk-scheduling algorithm?

(i) SSTF

(ii) FCFS

[7, 2018-19]

15. Suppose the moving head disk with 200 tracks is currently serving a request for track 143 and has just finished a request for track 125. If the queue of request is kept in FIFO order 86, 147, 91, 177, 94, 150, 102, 175, 130. What is the total head movement for the following scheduling?

(i) FCFS

(ii) SSTF

(iii) C-SCAN

[15, 2015-16]

16. Discuss the following terms:-

[10, 2014-15]

(i) Access Matrix

(ii) Boot Blocks