

Sixth Semester B.E. Degree Examination, July/August 2022 File Structures

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

1. a. Briefly discuss the Unix directory structures. (06 Marks)
 b. Briefly describe the layers of procedures involved in transmitting a byte from program data area to a file on disk. (09 Marks)
 c. What is Seeking? How seeking is supported with C and C++ streams. (05 Marks)
2. a. What are the different ways of adding structures to a file to maintain the identify of records, explain with an example. (10 Marks)
 b. List the various important situations, when a sequential search is good for Record Access. (04 Marks)
 c. Discuss the various Unix tools for sequential processing and direct Access. (06 Marks)
3. a. Explain the operations required to maintain an Index file in detail. (10 Marks)
 b. Explain the limitation of binary searching and Internal sorting. (10 Marks)
4. a. Describe how consequential processing is implemented in a general ledger program. (10 Marks)
 b. Explain with example, How object oriented model can be extended to perform multiway merging? (06 Marks)
 c. Explain object oriented model for implementing the consequential processes. (04 Marks)

PART – B

5. a. List the properties of a B-tree? Explain the rules for deleting a key from a node in B-tree. (09Marks)
 b. With a neat diagram, explain paged binary trees and list its advantages. (07 Marks)
 c. State the importance properties of B* truss. (04 Marks)
6. a. With a neat sketch, Discuss simple prefix B⁺ tree and its maintenance. (10 Marks)
 b. With a neat diagram, explain the internal structure of Index set blocks. (10 Marks)
7. a. Explain a Simple Hashing Algorithm. (10 Marks)
 b. What is Collision? Explain the process of collision resolution by progressive overflow technique. (10 Marks)
8. a. Explain the working of extendible Hashing. (10 Marks)
 b. Construct the procedure for finding buddy-buckets. (05 Marks)
 c. Explain briefly, the Linear- Hashing Method. (05 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.