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10IS63

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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