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10IS63

Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020
File Structures

Time: 3 hrs

Max. Marks:100

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

PART – A

- 1 a. Describe the relation between the physical file and the logical file. (04 Marks)
b. Briefly explain the different basic ways to organize the data on a disk. (10 Marks)
c. What is seeking? How it is supported in 'C' streams and 'C++' streams. (06 Marks)
- 2 a. What is a record? Explain different methods for organizing records of a file. (12 Marks)
b. What is the advantage of using inheritance for record buffer classes? Explain. (08 Marks)
- 3 a. Define data compression. Explain irreversible compression techniques. (06 Marks)
b. Explain the key-sorting technique and their limitations. (06 Marks)
c. What is inverted list? Discuss it with an example. (08 Marks)
- 4 a. Explain the object – oriented model for implementing co-sequential process. (10 Marks)
b. Briefly explain the different methods used to sort files on a tape. (10 Marks)

PART – B

- 5 a. Explain B-tree methods for search () and insert () with necessary C++ code. (08 Marks)
b. Explain deletion, merging and redistribution of elements in B-tree. (12 Marks)
- 6 a. Explain the simple – prefix B + tree. (05 Marks)
b. Compare the strengths and weakness of B + trees and B – tree. (05 Marks)
c. Explain the block splitting and merging due to insertion and deletion in the sequence set, with examples. (10 Marks)
- 7 a. What is Hashing? Explain the simple hashing algorithm. (10 Marks)
b. Explain the double hashing and chained progressive overflow collision resolution techniques. (10 Marks)
- 8 a. Explain the working procedure of extendible hashing. (10 Marks)
b. Explain briefly linear hashing and dynamic hashing method. (10 Marks)

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24 JAN 2020

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.

