10IS63

Sixth Semester B.E. Degree Examination, Dec.2018/Jan.2019
File Structures

Time: 3 hrs.   Max. Marks:100

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

PART – A

1   a. What are file structures? Explain briefly the history of file structures design. **(06 Marks)**
    b. Describe the relation between the physical file and logical file. **(04 Marks)**
    c. Briefly explain the different basic ways to organize the data on a disk. **(10 Marks)**

2   a. What are the different ways of adding structures to a file to maintain the identity of records? Explain each with example. **(10 Marks)**
    b. What are the different methods of accessing records? Explain direct access. **(04 Marks)**
    c. Define the following terms: (i) File access method   (ii) RRN   (iii) Meta-data **(06 Marks)**

3   a. Explain how spaces can be reclaimed in files. **(10 Marks)**
    b. What is meant by an index? Explain the operations required to maintain the index files. **(10 Marks)**

4   a. Explain object oriented model for implementing co-sequential processes. **(10 Marks)**
    b. Explain K-Way merging algorithms. **(10 Marks)**

PART – B

5   a. Define a B-tree. Explain the creation of a B-tree, with examples. **(10 Marks)**
    b. What are the properties of B-tree? Explain worst case search. **(10 Marks)**

6   a. Explain with an example adding a simple index to the sequence set. **(10 Marks)**
    b. Explain simple prefix B+ tree maintenance. **(10 Marks)**

7   a. Define hashing. Explain a simple hashing algorithm. **(10 Marks)**
    b. Explain the different collision resolution techniques. **(10 Marks)**

8   a. Explain the working of extendible hashing. **(10 Marks)**
    b. Write short notes on:
        (i)   Dynamic hashing
        (ii)   Linear hashing. **(10 Marks)**

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