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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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