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| 13CS2105 | - | FILE STRUCTURES |

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| Hours / Week | : | 4 |  | Sessional Marks | : | 40 |
| Credits | : | 4 |  | End Examination Marks | : | 60 |

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| **UNIT – I** |
| **File Structure Concepts**: Introduction, Files and Record Organization, Record Access, File Access and File Organization, Record structures, Portability and Standardization. |
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| **UNIT – II** |
| **Organizing Files For Performance**: Data Compression, Reclaiming Space in Files, Internal Sorting and Key Sorting.**Indexing**: Index, Index for Entry-Sequenced Files, Selective Indexes, Binding, Retrieval using combinations of secondary keys. |
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| **UNIT – III** |
| **B-Trees**: B-Tree properties, operations, indexing with Binary Search Trees, Multilevel Indexing, B\* Trees, Virtual B-Trees.**Indexed Sequential File Access**: Introduction, maintaining a sequence set, adding a simple index to the sequence set, separating instead of keys, prefix B+ Trees, B+ Trees. |
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| **UNIT – IV** |
| **Hashing**: introduction, hashing functions, Record distributions, collision resolution techniques (progressive overflow, double hashing, chained progressive overflow, chaining a separate overflow area, scatter tables) and buckets.**Extendible Hashing**: introduction, tries, performance, dynamic hashing, linear hashing. |
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| **UNIT – V** |
| File related header files in c and c++, File handling functions in c and c++, Reading and writing files in c and c++, File handling related classes in java (File, FileInputStream, FileOutputStream, RandomAccessFile). |
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| TEXT BOOKS |
| 1. File Structures Michael J.Folk.
2. The Complete Reference Java2, Herbert Schildt.
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