PVP 12

Code: CS4T4

II B.Tech - II Semester – Regular Examinations - JUNE 2014

FILE STRUCTURES
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) Explain the fundamental file operations in detail. 6 M

   b) Explain UNIX directory structure with diagram. 8 M

2. a) Describe the concepts and techniques of the buffer management. 6 M

   b) Suppose we have a block addressable disk drive with 400,000 bits per track and the amount of space taken up by sub blocks and inter block gap is equivalent to 500 bytes per block. Now we want to store a file containing 1000 bytes per record on the disk. How many records can be stored per track if the blocking factor is 45? 8 M

3. a) List and explain the most common methods of field structures. 8 M

   b) Explain about the inheritance in the C++ stream classes. 6 M

4. a) Explain UNIX utilities for sorting, merging and co-sequential processing. 7 M

b) Explain co-sequential processing and list the general assumptions and corresponding practical complexities. 7 M

5. a) What do you mean by Multilevel indexing? And explain the simple index for a sequential file. 7 M

b) Explain B-tree deletion and Merging with an example. 7 M

6. a) What is the difference between a simple prefix B+ Tree and a plain B+ Tree? 4 M

b) What are the common characteristics of B Tree, B+ Tree and Prefix B+Tree. 4 M

c) Explain indexed sequential file access and adding a simple index to the sequence set. 6 M

7. a) How do we deal with records that cannot fit into their home address? Explain it. 7 M

b) Explain Collision Resolution Techniques and discuss about pattern of record access. 7 M

8. a) Explain extendible hashing deletion with an example. 7 M

b) Explain how Extendible hashing working conditions with an example? 7 M