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Roll No

MCADD-703

M.C.A. (Integrated), VII Semester

Examination, May 2024

File Structures

Time : Three Hours

Maximum Marks : 70°

- Note :** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain opening, reading, writing and closing of files in your own words and write about the facilities provided by "C" programming language for these activities.
b) Compare magnetic tape and CD-ROM.
2. a) What is meant by collision? Explain a few collision resolution mechanisms.
b) Explain file structures and hashing of files with reference to CD-ROM.
3. Write short notes on (any two)
 - a) Space fragmentation
 - b) Storage compaction
 - c) Hex-dump
4. a) Explain the term I/O buffer and I/O processing with example.
b) Explain the concept of reading variable length records from the files.

5. a) What are the limitations of retrieving records using secondary keys? Explain the solution by using 'Linking the Reference' techniques.
b) What is indexed sequential access of a record? Describe maintenance of a sequence set.
6. a) Explain simple prefix B+ tree. Discuss the issues involved in maintenance of such tree.
b) What are the operations required to maintain an index file?
7. a) Explain how extendable hashing works?
b) Explain dynamic and linear hashing with figures.
8. Write notes on : (Any four)
 - a) Storage hierarchy
 - b) Organization of a storage disk
 - c) Deletion of variable length records
 - d) File-related header files in C
 - e) Sequential search
