

Advance Database Concepts

Date: 08-04-2025

Instructor(s)

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Quiz #03 (A)

Course code: CS4064

Total marks: 10

Questions: 1

Roll No

Section

Student Signature

Attempt all the questions.

CLO 2#: Apply the models and approaches in order to become enabled to select and apply appropriate methods for a particular case

Q1:

Assume: A block size is $B = 1024$ bytes, file has $r = 1,000,000$ records, each record is 100 bytes long, a block pointer is $P = 10$ bytes, a record pointer is $P_r = 11$ bytes, and a key field for the index is 6 bytes long. A database system uses a B+-trees index on key field. A leaf node and non-leaf node are one block in size and contain as many keys (and appropriate pointers) as will fit in a block. How many blocks will this index use? Also estimate the number of block accesses needed to search for and retrieve a record from the file given its key value using the B+-tree index. Show your working. [10]