

# Advance Database Concepts

**Date:** 08-04-2025

**Instructor(s)**

Mr. Muhammad Naveed

## Quiz #03 (B)

**Course code:** CS4064

**Total marks:** 10

**Questions:** 1

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Roll No

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Section

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Student Signature

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**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

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**Q1:** Consider a disk with block size  $B=2048$  bytes. A block pointer is  $P=6$  bytes long. A file has  $r = 1,000,000$  transaction records of fixed length. Record length  $R$  is 115 bytes long and customerID field is 10 bytes long. Suppose the file is ordered by the non-key field customerID and we want to construct a clustering index on customerID field that uses block anchors (i.e., every new value of customerID starts at the beginning of a new block). Assume there are 2500 distinct values of customerID, and that the transaction records are evenly distributed among these values. Calculate: