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# CSE 4331/5331 Data Models and Implementation Module I Summary & Test details

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## Test 1 Details

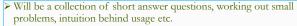
- > September 25, 2025 (Thursday) during class time <u>for all</u> sections
  - I usually make the paper for 65 to 70 mins; you will have 80 mins (entire class period)
  - > Answer questions in the space provided
  - \* Anything outside that will not be considered or graded
  - You will do the whole test/exam on the test sheet and submit it at the end
  - \* You should not run out of time if you keep your answers short
- For all section, Test 1 will be in person
- \* During the class period in the class room WH 308

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## Material for Test 1 includes

- ❖ Intro to DBMS
- Storage, buffer manager, file types
- Project Ia on use of indexes
- ❖ ISAM, B, and B+ tree indexing, Hash, and Bitmap indexing
  - Index types
  - Insert/delete algorithms
- ❖ External sort
- \* Application of cost model and analysis for scenarios
- Importantly
  - Work on practice problems
  - Work on questions on my slides
- ❖ Common sense

Test 1 (more information)



- $\ensuremath{\clubsuit}$  Read questions carefully; consider points allocation for the answer size
  - A question on storage structures
  - One or two question on indexing
     One related to the project
- A question on application of i/o cost formulas
- Point distribution for each sub-topic may vary
- Points will be given for the approach and logic
  - Small numerical errors maybe ignored
- short answer questions on your conceptual understanding will be asked.

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# Test 1 (sample questions for quiz/test 1) T/F with justification (1 + 1) Sparse index can be created on heap data file A primary index can be created on any subset of attributes of the relation Others Given some indexes on a relation, show which indexes will be beneficial for a set of given queries and why? May have to use cost analysis Insert or delete into a B+ tree 1 question on external sorting 1 question on hash indexing



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