

# **CS3223 Lecture 11b**

## **Briefing on Final Exam**

# Final Exam

- ▶ Date: **April 28 (Friday, 9-11am)**
- ▶ Duration: 2 hours
- ▶ Venue: Refer to Edurec
- ▶ Weightage: 40% of final grade
  - ▶ Maximum score for exam paper is 80 marks
- ▶ Closed-book exam (allowed one A4-sized double-sided sheet of notes)
  - ▶ Notes can be handwritten and/or printed

# What to bring?

- ▶ Student card
- ▶ One A4-sized double-sided sheet of notes (can be written and/or printed)
- ▶ **Electronic calculator**
  - ▶ You're not allowed to use your mobile phone or borrow calculator from others during the test
- ▶ **Pencils, erasers, & pens**
  - ▶ MCQ/MRQ questions should be answered using pencil
- ▶ Do not bring your own scratch papers
  - ▶ Scratch papers will be provided

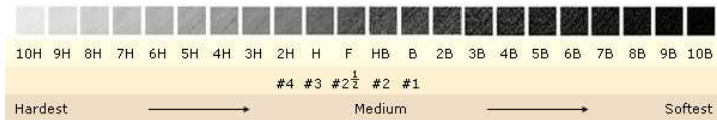
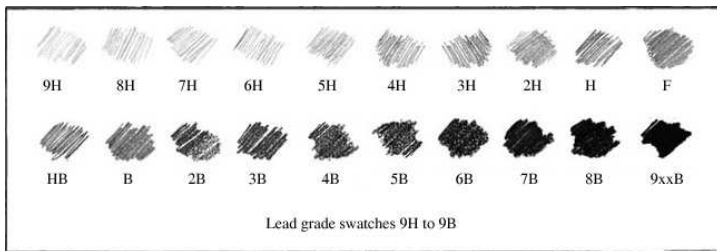
# Exam Topics

- ▶ The scope of the exam includes all the following topics:
  - ▶ Lecture 4: Sorting & Selection
  - ▶ Lecture 5: Projection & Join
  - ▶ Lecture 6: Query Evaluation & Optimization
  - ▶ Lecture 7: Transaction Management
  - ▶ Lecture 8: Concurrency Control
  - ▶ Lecture 9: Multiversion Concurrency Control
  - ▶ Lecture 10: Crash Recovery
- ▶ Although lectures 1 to 3 are excluded from the scope, knowledge of storage & indexing is still required (e.g., cost model for index-based evaluation of relational operators)

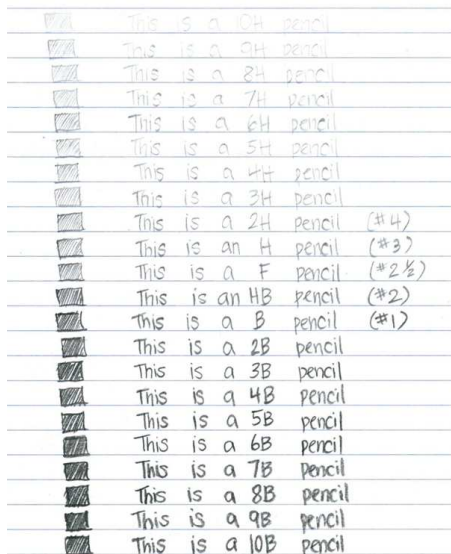
# Exam Questions

- ▶ The test consists of three types of questions
- ▶ Multiple Choice Questions (MCQs)
  - ▶ Choose exactly one choice
  - ▶ Example: Choose the most appropriate statement ...
- ▶ Multiple Response Questions (MRQs)
  - ▶ Choose one or more responses
  - ▶ Example: Select all the statements that are true about ...
- ▶ Short Questions
  - ▶ Questions that require explanations, calculations, short answers, etc.
- ▶ Answers for MCQs & MRQs will be scanned and auto-graded

# Choosing the right pencils



Source: [pencils.com](http://pencils.com)



# Inappropriate Responses

A. Let  $L$  denote the number of leaf pages in  $I_{DB}$  accessed by the evaluation of  $Q$  using  $I_{DB}$ .

Select the most **appropriate** statement about  $L$ .

☐  $L = 20$ .

☒  $L = 50$ .

☒  $L = 100$ .

☐  $L = 400$ .

☐ All of the above statements are false.

☒  $L = 40$ .

☐  $L = 60$ .

☐  $L = 200$ .

☐  $L = 4000$ .



# Inappropriate Responses (cont.)

Select **all** the statements that are true about  $T'$ .

- ☐ The total number of internal nodes in  $T'$  is 1.
- ✓ ☒ The total number of internal nodes in  $T'$  is 2.
- ☒ The total number of internal nodes in  $T'$  is 3.
- ☐ The total number of internal nodes in  $T'$  is at least 4.
- ☐ The total number of leaf nodes in  $T'$  is 2.
- ☐ The total number of leaf nodes in  $T'$  is 3.
- ✓ ☒ The total number of leaf nodes in  $T'$  is 4.
- ☒ The total number of leaf nodes in  $T'$  is 5.
- ☐ The total number of leaf nodes in  $T'$  is 6.
- ☐ The total number of leaf nodes in  $T'$  is at least 7.
- ☒ There is a leaf node in  $T'$  consisting of only one data entry  $103^*$ .
- ✓ ☒ There is a leaf node in  $T'$  with data entries  $102^*$  and  $103^*$ .
- ☐ There is a leaf node in  $T'$  with data entries  $103^*$  and  $105^*$ .

*pls follow answer  
using this pen.*

# Exam Attendance

- ▶ Attendance will be taken using **Exam Attendance System (EAS)**
  - ▶ Ensure that you've installed the **uNivUS app** on your mobile phone
  - ▶ `https://univus.nus.edu.sg/`
- ▶ Connect your phone to NUS Wi-Fi
- ▶ Scan the exam's QR code using uNivUS app
  - ▶ Exam's QR code will be displayed at the exam venue