EECS2011 (N & Z) Winter 2022
Guide to WrittenTest1
WHEN:
~~04:00~~ 4:30 pm – ~~04:30~~ 5:00 pm (EST), Monday, February 14
<u>or</u>
~~08:30~~ 9:00 am – ~~09:00~~ 9:30 am (EST), Tuesday, February 15

CHEN-WEI WANG

– This written test is **strictly** individual: identified collaborations will be reported to Lassonde for **a breach of academic honesty**.

– You are given **<u>30 minutes</u>** to complete the submission. The time limit is **<u>strict</u>**.

– This written test accounts for 10% of your course grade.

– All questions will be answered on the Sections N&Z eClass site.

1 Rules

– WrittenTest1 will be:

  • *opened* for submission at **~~04:00~~ 04:30 pm EST** on **<u>Monday</u>**, February 14; and
  • *closed* for submission at **~~04:30~~ 05:00 pm EST** on the same day.

– WrittenTest1 will again be:

  • *opened* for submission at **~~08:30~~ 09:00 am EST** on **<u>Tuesday</u>**, February 15; and
  • *closed* for submission at **~~09:00~~ 09:30 am EST** on the same day.

– For the above two submission periods:

  • You are only allowed to attempt the test <u>once</u>. That is, as soon as eClass logs your first attempt, it will be graded and any later attempt will not be possible and will be disregarded.
  • Once submitted, you are <u>not</u> allowed to start a new attempt, even before the test is closed.

– There is **<u>not</u>** a 24-hours submission period: if you started your attempt later than the above-mentioned time where the submission is opened, then you would have <u>less than</u> 30 minutes available to complete the test. For example, if you started your attempt at 04:05 pm on Monday, the test's submission will still be closed at 04:30 pm, meaning that you have 25 minutes remaining to complete the test.

2   Format

– There might be multiple-choice questions:

- A true or false question
- A question with a **single** correct answer
- A question with **multiple** correct answers

  e.g., Say you are given 5 answers for the question: 2 of them are correct (and 3 of them are incorrect). Accordingly, for each <u>correct</u> answer you choose will receive a credit of $\frac{100\%}{2} = 50\%$, whereas for each <u>incorrect</u> answer you choose will receive a penalty of $\frac{-100\%}{3} = -33.3\%$.

  Say you chose one <u>correct</u> answer and one <u>incorrect</u> answer, then you would receive $50\% + (-33.3\%) = 16.7\%$ of the full marks. Also, the minimum mark you can receive is 0 (e.g., when you chose one <u>correct</u> answer and two <u>incorrect</u> answers).

  This mechanism is to ensure that one cannot just receive full/high marks by simply choosing (almost) *all* answers.

– There might be written questions requiring you to, e.g.,:

- Write texts justifying modelling decisions.
- Write the valid ASCII characters for mathematical constructs (e.g., `where_is: Employee +-> Location`).

3   Coverage of the Test

– Materials (slides, iPad notes, recordings) related to the following lectures will be covered:

- ASYMPTOTIC ANALYSIS OF ALGORITHMS   PDF [Weeks 1, 2]
- ARRAYS VS. SINGLY-LINKED LISTS   PDF [Weeks 3, 4]

– Recursion is **<u>not</u>** covered in this test.

– You may also want to review the relevant Q&A session materials, where we discussed clarifications and extra examples.

4   Study Tips for the Test

– The test is meant to **<u>test your understanding</u>** of the taught concepts (which is different from a programming test in which you are expected to write Java programs with no syntax or type errors).

– Go through the slides and annotated iPad notes to review the concepts and examples. Re-watch parts of the lecture/tutorial videos if necessary.

– Skim through the topics discussed in the weekly Q&A sessions: watch ones you consider as helpful.

– Pay special attention to the logic explained on *tracing Java code* (e.g., use of a boolean variable to control the entrance into and exit from a loop, visualizing object creations and method calls).

– Given a piece of Java code, you are expected to judge:

- Its asymptotic running time
- If it does **<u>not</u>** compile, then what **syntax errors** or **type errors**?
- If it compiles:
  - ■ Will an **exception** occur (e.g., `IndexOutOfBoundsException`, `NullPointerException`)?
  - ■ If no exception will occur at <u>runtime</u>, then what **console output** will it produce? Are there any **logical errors** (i.e., the output is not as expected)?

5 Example Questions

– Example questions will be made available on the Sections N & Z eClass site (under the `Written Tests` section) *by the end of <u>Wednesday, February 9</u>*.

You can attempt these questions for as many times as you wish, but the submission will be **<u>closed</u>** <u>shortly before</u> the actual test starts.

– Please understand that these questions are:

- meant for familiarizing yourself with the **<u>format</u>** and **<u>workflow</u>** of the test;
- **<u>not</u>** meant to cover **<u>all</u>** topics required by the actual test (you are expected to study **<u>all</u>** materials as listed in Section 4); and
- on the <u>easier</u> side (in the actual test, there will be harder questions testing your understanding of the materials).