## **Examination PCPP**

Monday December 19, HH:MM - Tuesday December 20, HH:MM
Generated at 2022/12/01

These exam questions comprise XXX pages; check immediately that you have them all.

The exam questions are handed out in digital form from LearnIT.

Your solution must be handed in no later than Tuesday, December 20th 2022 at HH:MM according to these rules:

- Your solution must be handed in through LearnIT.
- Your solution must include:
  - A single PDF file containing a short report with written explanations in English for all exercises. The
    report may also include: relevant program fragments, tables, charts and so on, as further specified
    below. The report must have a standard ITU front page as described at https://itustudent.itu.dk/studyadministration/exams/course-exams/exam-assignments.
  - A single ZIP file with your complete source code. The directory structure should show for which question the code is relevant. You may add a README file to help examiners navigate the code.

Note that it must be possible to run your code (with Java 8) following the instructions at https://github.itu.dk/jst/PCPP2022-Public/blob/main/general-info/guide-using-gradle-for-exercises.md.

Your report should be as self-contained as possible. Examiners will not evaluate questions solely based on the meaning of source code.

There are a number of questions and sub-questions.

If you find unclarities, inconsistencies or misprints in the exam questions, then you must describe these in your answers and describe what interpretation you applied when answering the questions.

Your solutions and answers must be made by you and you only. This applies to program code, examples, tables, charts, and explanatory text (in English) that answer the exam questions. You are not allowed to create the exam solutions as group work, nor to consult with fellow students, pose questions on internet fora, or the like. You are allowed to ask for clarification of possible mistakes, misprints, and so on, by private email to raulp@itu.dk with a CC: to sap@itu.dk. Expect the answer in the course LearnIT news forum. You should occasionally check the forum for news about clarifications to the exam set.

Your solution must contain the following declaration:

## I hereby declare that I have answered these exam questions myself without any outside help.

(name) (date)

When creating your solution, you may use (and refer to) the course textbooks, lecture notes, and lecture slides. Additionally, you may use *your own* solutions to course exercises, and internet resources. However, it is your responsibility to verify the validity of the sources you consult. You can trust the course textbooks, lecture notes and lecture slides; their validity is granted. Finally you may use any text editors, office software and so on to create your solution.

You are **not allowed to plagiarize** from other sources in your solutions. You must not attempt to take credit for work that is not your own. Your solutions must not contain text, program code, figures, charts, tables or the like that are created by others, unless you give a complete reference, describing the source in a complete and satisfactory manner. This holds also if the included text is not an identical copy, but adapted from text or program code in an external source.

You do not need to give a reference when using code from these exam questions or from the mandatory course literature, but even in that case, your solution may be easier to understand and evaluate if you do so.