Itä-Suomen yliopisto Tietojenkäsittelytiede 3621512 Ohjelmistotuotanto 3621512 Software Engineering

Course exam

14.12.2018

Instructions: provide short 1-1,5 pages essay-type answers. Voit tietenkin vastata myös suomeksi (= you may also answer in Finnish).

Answer all questions (1) to (4). (6 points/each for questions (1)-(3) and 12 points for question (4)).

- Define with short definitions to following three concepts, e.g. what they are and for what are they used?
  - a) Process Reference Models (PRM)
  - b) Process Assessment Models (PAM)
  - c) Software Process Improvement (SPI)
- What is software engineering professional certification (i.e. what are the main components in certification schemes and what is the process of certification-recertification) and why is it important for global software engineering practice?
- As a software engineer, you have implemented a technically perfect software application. What could be wrong with its quality?
- 4. What is Software Product Quality? Please explain the Quality in Use model and the Product Quality model included in the ISO/IEC 25010 "Systems and software engineering Systems and software Quality Requirements and Evaluation (SQuaRE) System and software quality models" (The level of quality characteristics is sufficient in the explanation).