

Work clearly. Read the entire exam before you start. **Motivate each answer concisely and to the point.** Maximal scores per question are given between parentheses. The maximum total score is 20 points on 11 questions.

1. (2) How does architectural design relate to other software development activities?
2. (2) When and why is it important to describe multiple architectural views?
3. (1) Describe a generic viewpoint that is *not* one of Kruchten's 4+1 viewpoints.
4. (1) What usability aspects are an architectural concern?
5. (2) Explain how *Module Architecture Control* can be performed.
6. (2) Present a general and a specific scalability requirement in the form of a *Quality Attribute Scenario*.
7. (2) Describe the notion of *tactic* to achieve quality, and give an example of a modifiability tactic.
8. (2) What is the ATAM? Which ATAM activities can and cannot be used for *creating* an architecture?
9. (2) What is a *Component Model* and how can it play a role in architectural design?
10. (2) Compare *Object-oriented Development* and *Component-Based Development* (CBD) from an architectural perspective.
11. (2) "Dynamic aspects of the software cannot be analysed without running it." Would you agree with this statement? If yes, explain why. If no, provide a counterexample.