

## Professional Software Engineering Master Certification - Sample Exam Questions

1. Your software design appears to be inaccurate. This particular problem may originate from problems in Requirements Engineering. What is the most probable requirements fault that may cause this error?
  - a. ambiguous requirements
  - b. incomplete requirements
  - c. minimal specification
  - d. infeasible requirements
2. Software Design is concerned with which of the following:
  - a. Identifying and describing the operational needs of the system
  - b. Performing a validation of how well the system performs
  - c. Writing system requirements in a form that may be implemented
  - d. Describing how the system is to perform its tasks
3. Concurrency is:
  - a. a middleware tool
  - b. a property of software systems
  - c. a bug, flaw or failure in a computer program
  - d. a commonly used database query language
4. Verification is:
  - a. Usually performed by a dedicated tool
  - b. The process of checking that software fulfills its intended purpose
  - c. A requirements concern
  - d. Always performed by quality assurance personnel
5. Given the following predicate (NOT A) AND (B OR C), which of the following test suites satisfies Decision/Condition coverage?
  - a. 1. A=true, B=false, C=true 2. A=false, B=false, C=false
  - b. 1. A=true, B=true, C=false 2. A=false, B=false, C=false
  - c. 1. A=true, B=true, C=true 2. A=false, B=false, C=false
  - d. 1. A=true, B=false, C=true 2. A=false, B=true, C=false
6. Software deteriorates rather than wears out because:
  - a. software suffers from exposure to hostile environments
  - b. defects are more likely to arise after software has been used often.
  - c. multiple change requests introduce errors in component interactions.
  - d. software spare parts become harder to order.
7. \_\_\_\_\_ is the process of *monitoring* SCM activities along with *in-process audits*.
  - a) Configuration items

- b) Planning for SCM
- c) Surveillance of SCM
- d) In-process audits
- e) Interface control

8. Which of the following statements is true?

- a. The SEPG is a grass-roots approach – it works only with developers so that management cannot personalize the process
- b. SPI initiatives that include management changes must also include an understanding of planning-and-control policies and procedures

9. Is this statement about the Waterfall Model true or false? It is appropriate when the requirements are well understood and changes will be fairly limited during the design process.

- a. True
- b. False

10. An example of a behavioral model is:

- a) Component diagram
- b) Data Flow Diagram
- c) Class Diagram
- d) Entity Relationship Diagram

11. In an analysis and determination of an organization's MARR, which of the following issues should be considered?

- a. MARR does not apply to for-profit organizations
- b. If a proposal is elective, the MARR may be set lower
- c. As the number of proposals rises, MARR must be increased
- d. MARR should be set to at least the highest prevailing interest rate for low-risk investments

12. Suppose a government transportation department is evaluating proposals to increase traffic flow along a major artery by 10%. Which decision analysis procedure would it most likely employ?

- a. Fixed-cost analysis
- b. Minimum-cost analysis
- c. Maximum-ROI analysis
- d. Fixed-effectiveness analysis