

Final Term Examination – Spring 2005
Time Allowed: 150 Minutes

Please read the following instructions carefully before attempting any of the questions:

1. Attempt all questions. Marks are written adjacent to each question.
2. Do not ask any questions about the contents of this examination from anyone.
 - a. If you think that there is something wrong with any of the questions, attempt it to the best of your understanding.
 - b. If you believe that some essential piece of information is missing, make an appropriate assumption and use it to solve the problem.
 - c. Write all steps, missing steps may lead to deduction of marks.
3. **A Note is added to some questions. Follow the instruction given in the note to give accurate answer.**

****WARNING: Please note that Virtual University takes serious note of unfair means. Anyone found involved in cheating will get an `F` grade in this course.**

Total Marks: 70

Total Questions: 22

Question No. 1

Marks : 01

Effective software project management focuses on

- people, performance, payoff, product
- people, product, performance, process
- people, product, process, project
- people, process, payoff, product

- people, process, price, product

Question No. 2

Marks : 01

What did Fredrick Brooks mean when he said "There is no silver bullet"?

- *Software engineers should be shot (but we're not allowed to).*
- The "software crisis" was an illusion that proved not to be a threat at all.
- No one technique will magically kill all software development problems.
- Real design problems can only be solved with real (i.e. non-magical) tools.
- Systems that appear magical from the outside, are really just composed of simple code on the inside.

Question No. 3

Marks : 01

Which one of the following is a CMM level 5 KPA?

- Software configuration management
- Process change management
- Peer reviews
- Process measurement
- Software project tracking

Question No. 4

Marks : 05

List the 3 broad categories of information that make up the software configuration. [5 Marks]

Question No. 5

Marks : 10

Explain what is wrong with the notion that software engineering is too time consuming and interferes with a programmer's productivity. [10 Marks]

Question No. 6

Marks : 10

Compare the staged and continuous models of CMMI for software systems. [10 Marks]

Question No. 7

Marks : 05

What is "time-boxing" as it relates to project scheduling? [5 Marks]

Question No. 8

Marks : 01

Which one of the following activities does not belong to Risk Mitigation, Monitoring, and Management Plan?

- Risk Identification
- Risk Projection
- Risk Mitigation
- Risk avoidance
- Risk Management and Contingency Planning

Question No. 9

Marks : 01

Pair programming is associated with:

- RAD
- Incremental development
- eXtreme Programming
- Prototyping
- Synchronize and stabilize

Question No. 10

Marks : 01

The prototyping model of software development is

- A reasonable approach when requirements are well defined.
- A useful approach when a customer cannot define requirements clearly.
- The best approach to use for projects with large development teams.
- A risky model that rarely produces a meaningful product.
- An old fashioned model that is rarely used any more.

Question No. 11

Marks : 01

Which maturity level is characterised by:

"Basic project management processes established to track cost, schedule and functionality. Has the necessary process discipline in place to repeat earlier successes on projects with similar applications".

- Level 1
- Level 2
- Level 3
- Level 4
- Level 5

Question No. 12

Marks : 10

How is project scope defined? **[10 Marks]**

Question No. 13

Marks : 01

Defect prevention is defined as:

- Avoiding defect insertion
- Avoiding defect insertion, but fixing errors when reported
- Finding and fixing errors after insertion
- Finding and fixing errors after release
- Not reporting errors

Question No. 14

Marks : 01

Which one of the following principles/techniques is NOT a software projects scheduling principle?

- Interdependency identification
- time allocation
- effort validation
- Function point analysis
- Milestone definition

Question No. 15

Marks : 10

Describe all activities that must occur in order to produce a Risk Mitigation, Monitoring, and Management Plan. **[10 Marks]**

Question No. 16

Marks : 01

Which one of the following is the 4th level of the SEI Capability Maturity Model?

- initial or ad hoc
- optimizing*
- managed
- defined
- repeatable

Question No. 17

Marks : 01

Which one of the following is NOT a useful indicators of software quality?

- Correctness
- Code size
- Maintainability
- Integrity
- Usability

Question No. 18

Marks : 01

Which one of the following does not belong to a strategy for dealing with risk?

- Risk avoidance
- Security risk assessment
- Risk monitoring
- Risk management
- Contingency planning

Question No. 19

Marks : 01

Who of the following is NOT usually present in a technical review:

- User
- Quality Engineer
- The programming tools supplier
- Specialist with knowledge of the application
- Architect

Question No. 20

Marks : 01

What activity does a software project manager need to perform to minimize the risk of software failure?

- double the project team size
- request a large budget
- allow absolutely no schedule slippage
- define milestones and track progress
- Request 50% more time than estimated

Question No. 21

Marks : 05

With respect to Software Refactory, what is meant by "move method" and why is it useful?
[5 Marks]

Question No. 22

Marks : 01

The quality of a software is high, if

- the code produced for one system can be applied to others with little or no modification.
 - the allocations are difficult to cope with changes in the organization.
 - it does not allow to make copies.
 - it causes the user no surprises during operation.
 - the modifications are reflected in the documentation.
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