



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2011/2012 – 2nd Year Examination – Semester 4

IT4304: Rapid Software Development
Part 1: Multiple Choice Question Paper

22nd July, 2012
(ONE HOUR)

Important Instructions :

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- The paper has **30 questions** and **8 pages**.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with **one or more** correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 (*All the incorrect choices are marked & no correct choices are marked*) to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**

1. Which of the following correctly defines Rapid software Development?

- (a) Developing software in a Lesser time
- (b) Developing working software in a lesser time with high quality & low cost
- (c) If is a software development methodology that uses minimal planning in favour of rapid prototyping.
- (d) It is a software development methodology that aims providing prototypes to the client.
- (e) It is another element of traditional software development methodologies.

2. Among the following, which is not considered a people-ware issue?

- (a) Group dynamics.
- (b) Team Work.
- (c) Team selection.
- (d) Developer productivity.
- (e) Unexpected behavior of the case tools.

3. What is/are not considered (a) dimension(s) of software development speed?

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|----------------|-------------|--------------|
| (a) People | (b) Process | (c) Policies |
| (d) Technology | (e) Product | |

4. Which of the following are the key motives for RSD?

- (a) Sometimes the business requirements for a system can be fully satisfied even if some of its operational requirements are not satisfied.
- (b) Working software is more important than the comprehensive documentation.
- (c) Software developers are continuously having work to do.
- (d) Client acceptance of the software is accessed in the initial phases.
- (e) Quick delivery of software will help the software development firm to acquire more projects.

5. What is meant by the term “Classic Mistakes” in any software development methodology?

- (a) Incorrect or inefficient development practices
- (b) Incorrect behavior of the client
- (c) Incorrect or inefficient tools usage in the project
- (d) Mistakes done by the team when not following RSD methodology
- (e) Mistakes done by the project managers when managing the team and project

6. Which of the following is a /are benefit(s) of software reuse?

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| (a) Reduce cost | (b) Effective use of specialist |
| (c) Accelerate development | (d) Increase tool support |

7. What is the 80-20 rule in RSD?

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| (a) 80% software systems do not meet client requirements, and only 20% do. |
| (b) In most cases, software systems meet only 80% of client requirement while remaining 20% are not satisfied. |
| (c) In most cases, software systems can meet 80% of client requirements in 20% of time of the total system. |
| (d) 80% of the faults during RSD are caused by 20% of actions. |
| (e) 80% of software is developed using RSD while 20% software does not use RSD. |

8. Which of the following statements correctly explain the “Silver Bullet Syndrome”?

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| (a) It is a sickness that affects software team members when working till late hours. |
| (b) It is a misunderstanding that one or two highly skilled developers can finish the project successfully if everything goes wrong. |
| (c) It is relying too much of the advertised benefits of the previously unused tools and technologies. |
| (d) It is thinking that computer aided software engineering tools will do everything in the project. |
| (e) It is a misunderstanding that adding experienced people to the delayed projects will make it on schedule again. |

9. Which of the following need to be considered the most when selecting a RSD methodology for the project?

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| (a) How much does this project demand? |
| (b) How well a customer and client understand the requirement? |
| (c) How much profit that will company will gain by the project? |
| (d) How much damage charges are needed to be paid by the company if project delivery failed? |
| (e) Does it need to provide the customers with visible progress throughout the project? |

10. For which of the following software projects would the RSD methodology be applicable?

- (a) Air traffic control system
- (b) Web Based system for Dept. Of Examination to display O/L & A/L results
- (c) Stand- alone student registration system for a school.
- (d) Control system for a chemical plant
- (e) An inventory control system which is interoperating with an existing accounting system

11. In function point (FP) analysis, the final total FP value used is not the total of FP values. Total of FP values is adjusted to cope with some other unconsidered factors. How is this adjusted FP total value calculated?

- (a) Adjust FP Total= FP total/Random value between 0.65 and 1.35.
- (b) Adjust FP Total= FP total*Computed value between 0.65 and 1.35.
- (c) Adjust FP Total=FP total/Number of employees in the project.
- (d) Adjust FP Total=FP total*Influence Multiplier.
- (e) Adjust FP total=FP total*Random value between 0.65 and 4.35.

12. Which of the following are open source RSD tools?

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| (a) Dreamweaver | (b) Eclipse |
| (c) Intelli-J-IDEA | (d) Net-Beans |
| (e) Visual Studio | |

13. Which of the following is a true statement about managing customer expectations in the context of software development?

- (a) Many problems in the area of software development speed arise from unstated, unrealistic expectations.
- (b) Customer expectations need to be documented and signed prior to development so that they will not change, and development is unchanged.
- (c) Working with the customer to establish realistic expectations about his schedule is key to success.
- (d) Part of software developer's job is to educate the customer so that he understands software development better.
- (e) Satisfying customer expectation is not a part of the project.

14. The Cost for a single function point is calculated by

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| (a) random values between 0.65 and 4.35. | (b) past experience. |
| (c) using FP table. | (d) using FP multiplication table. |
| (e) using FP formula. | |

15. Choose the correct software sizing method(s).

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| (a) Number of lines of code |
| (b) Function points |
| (c) Use Cases |
| (d) Number of client spec circulations |
| (e) Number of development Cycle visited in the spiral |

16. Which of the following statements is /are correct about the Function Point Analysis used in RSD?

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| (a) A function point is a unit of measurement to express the amount of business functionality. |
| (b) Function Point Analysis is an algorithmic approach. |
| (c) Function points are determined using requirement specification. |
| (d) Number of function points in a program is based on the number of inputs and outputs. |
| (e) Number of function points in a program is based on the complexity of inputs and outputs. |

17. Which of the following are true statements about effort estimation?

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| (a) Once the size estimation is completed, the effort estimation is the next. |
| (b) Effort estimation needs to be done in parallel to the size estimation for higher productivity. |
| (c) Effort estimation is facilitating schedule estimation. |
| (d) Effort estimation is facilitating the decision making on project team size. |
| (e) Effort is calculated in months. |

18. From the following functionalities, which one(s) is/are counted while counting the function points?

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| (a) Input and output | (c) Inquiries | (e) Internal systems |
| (b) Internal files | (d) External interface files | |

19. Which of the following statement(s) is/are considered as root causes for overly optimistic schedules?

- (a) Managers believe that developers will work harder for ambitious schedule.
- (b) Developers lying about what they can do and can't do in the project.
- (c) New feature are piled on to the project, but no change in the schedule.
- (d) Clients refuse to accept a range of estimates; instead they want the best case.
- (e) Underestimation of the project because of sales and marketing deadlines.

20. Identify the correct characteristic(s) of the prototyping method?

- (a) Horizontal prototype is a prototype that models many features with less detail
- (b) Global prototype is a prototype of the entire system
- (c) Vertical prototype is a prototype that models few features with much detail.
- (d) Local prototype is a prototype of a single usability-critical system component
- (e) Operational prototype is a prototype used to validate system specifications.

21. What is/are the best condition(s) to use iterative and incremental development?

- (a) Rrequirements are expected to evolve overtime
- (b) Basic functionality is needed to the market early.
- (c) Small projects with little time spam
- (d) Project that require excessive client testing
- (e) Project where requirements are unknown

22. Choose the aspect(s) of a software project where team building is required the most.

- (a) Review requirements
- (b) Developing the software
- (c) Managing a Project
- (d) Testing Software
- (e) Developing the software architecture

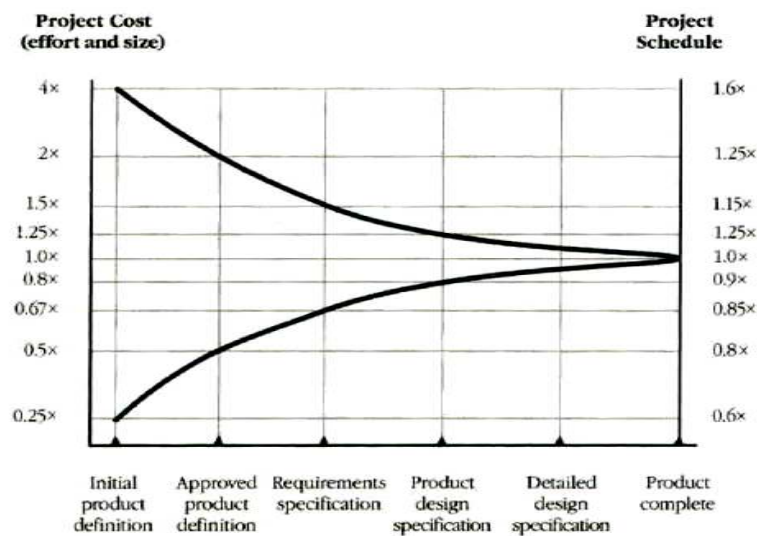
23. What does the acronym SWAT stand for in the context of software teams?

- (a) Software analysis team
- (b) Skilled with any tool
- (c) Skilled with advanced tools
- (d) Skilled with alternative tools
- (e) Skilled workers analysis team

24. What is a/are essential component(s) in a RSD tool?

- (a) An interface generator
- (b) A database programming language
- (c) A report generator
- (d) An application memory profiler
- (e) An automated comment generator

25. Which of the following statement(s) is/are true about the graph below?



- (a) The graph shows that cost estimate becomes more precise as the project progresses.
- (b) The graph shows that until requirement specification is finalized, the project cost estimations are error prone.
- (c) The graph shows that until product completion, cost estimations should be documented.
- (d) The graph shows that even if the requirements are finalized, the cost cannot be finalized.
- (e) The graph shows that the project schedule is not to be finalized until the product completion.

26. Which of the following method help the reduction of manual coding?

- (a) Using wizard
- (b) Using refactoring tools
- (c) Using re-engineering tool
- (d) Using Code generators
- (e) Using reusable modules

27. What is meant by “Risk –driven iterative development”?

- (a) Iterative and incremental development incurs a higher risk.
- (b) The risk in the iterative and incremental development drives the process.
- (c) Developers are free from the risks in the iterative and incremental development process.
- (d) Choosing the most riskiest and difficult elements for the early iterations.
- (e) Choosing the most riskiest and difficulties elements for the late /last iterations.

28. Which of the following software development methodologies fall in to the category of “iterative and incremental development”?

- (a) EVO (Evolutionary Project Management)
- (b) RUP (Rational Unified Process)
- (c) MSFP (Microsoft Solutions Frame work Process)
- (d) DSDM (Dynamic System Development Method)
- (e) XP (Extreme Programming.)

29. Identify the characteristic(s) of “Focus Groups”?

- (a) Discussion groups for 2 or 3 hours.
- (b) Conducted or lead by an experienced facilitator.
- (c) The facilitator listens and documents the discussion.
- (d) The facilitator prepares the agenda.
- (e) The lead from each team in the discussion is talking in the discussion.

30. Which of the following is/are constraint(s) of Rapid Application Development?

- (a) Client should accept informal deliverables.
- (b) Meeting notes are available rather than formal requirement specification.
- (c) No design documents.
- (d) Clients do not accept release without documentation.
- (e) Development team needs to finalize release work in short period of time.
