

SOFTWARE ENGINEERING 2004 MIDTERM QUESTIONS

PART I

1-What does an activity network diagram represent?

- a)Project budget
- b)task dependencies and critical path
- c)Personel assignment to various tasks
- d)All of them
- e)None of them

2-Which one of the following is a complete and true definition for the software reliability?

- a)It is the probability of the failure free operation for a specific time interval in a specified environment for a given purpose
- b)It is the measure of how well a system is performing under overloaded conditions
- c)It is the percentage of number of errors found in a specific interval to the total number of possible errors
- d)It is the measure of the time that it takes a system to recover from a failure
- e)None of them

3-Which one of the following is not true for “User Documentation”?

- a)If online information is present paper documentation is not required
- b)System refence manual and system installation manuals are examps of user doc.
- c)Documentation should be oriented both for experienced and inexperienced users
- d)All of them
- e)None of them

4-Which one of the following is a required characteristic of software?

- a)Maintanibility
- b)Reliability
- c)Usability
- d)None of them
- e)All of them

5-Which one of the following is not a management acitivity for software projects?

- a)Project plannnig
- b)Project monitoring
- c)Proposal writing
- d)Project prototyping
- e)None of them

6-Which one of the following is true for waterfall model?

- a)Project requires large development teams
- b)Proccess is based on assembling reusable components in software development
- c)Process requires a lot of interaction with potential users
- d)Process is visible
- e)None of them

7-Which one of the following is true for N-version programming?

- a)It means to execute various implementation sewuentially that are developed from the same software specifications
- b)It requires diffirent teams that work on diffirent specifications
- c)It is an approach that is used in evolutionary development
- d)All of them
- e)None of them

8-Which one of the following statements is true for generic products?

- a) Generic products mean shareware software
- b) Generic products are developed by a development organization to be sold to any customer
- c) Generic products have to be run on any PCs
- d) Generic products have to be portable across various platforms
- e) None of them

9-Which one of the following is not true?

- a) In client/server model new servers can easily be added
- b) When large amounts of data are to be shared the repository model is suitable
- c) In repository model, centralised management of data is possible
- d) Abstract machine model organizes the system into a set of layers each of which provide a set of services
- e) None of them

10-Which one of the following is true?

- a) Remaining %X of software faults may not cause a %X reliability improvement
- b) Reliability and efficiency of a system is inversely proportional
- c) Reliability can be perceived differently by different users
- d) All of them
- e) None of them

11-Which one of the following is performed in requirements eng process?

- a) User interface design
- b) Feasibility study
- c) Architectural design
- d) Project cost planning
- e) None of them

12-Which one of the following is not used to control flow between subsystems?

- a) Interrupt driven model
- b) Manager model
- c) Broadcasting model
- d) Call-return model
- e) None of them

PART II

1- Define the functional and nonfunctional requirements and give one example for each regarding the same software?

2- What is missing from the following reliability requirement on a machine that changes bank notes into coins:

“The rate of occurrence of failure (ROCOF) is at most 1 in 1000 request”

3- What is the risk management? list the task of risk management?

PART III

1- Describe the system models produced and their role in the requirement analysis process?

2- Describe software prototyping approaches and state the distinction between evolutionary and throw-away prototyping?

