



Software Engineering
Assignment- 2
TYPE OF QUESTION: MCQ/MSQ

Number of questions: 10

Total mark: 10 X 1 = 10

For each of the following questions one or more of the given options are correct. Choose the correct options.

QUESTION 1:

Which one of the following activities would span all stages of a software development life cycle (SDLC) in waterfall-based software development?

- a. Coding
- b. Testing
- c. Project management
- d. Design
- e. Requirements specification

Correct Answer: c. Project management

Detailed Solution:

In SDLC, project management phase spans across all stages. Without SDLC, the project manager suffers from 99% complete syndrome.

QUESTION 2:

In waterfall model of software development, unit testing is carried out during which phase of the waterfall model?

- a. Implementation phase
- b. Testing phase
- c. Maintenance phase
- d. Design phase
- e. Requirements specification phase

Correct Answer: a. Implementation phase

Detailed Solution:

During development/implementation phase, unit testing is usually performed by the developers to ensure proper development.



QUESTION 3:

In waterfall-based development, which one of the following phases accounts for the maximum effort during development of a typical software?

- a. Implementation
- b. Testing
- c. Designing
- d. Specification
- e. Feasibility study

Correct Answer: b. Testing

Detailed Solution:

During development phase, testing usually accounts for maximum effort, whereas for overall SDLC, maintenance phase account for maximum effort. Please refer slide 20 of week 2 lecture material.

QUESTION 4:

Which of the following advantages can be expected to accrue when iterative waterfall model is used for a project?

- a. Easy to understand, easy to use, especially by inexperienced staff
- b. Milestones are well understood by the team
- c. Provides requirements stability during development
- d. Strong management control (planning, staffing, tracking etc) on the project
- e. Project progress can be accurately monitored by the project manager, as a result schedule slippages are rare
- f. Continual integration of the developed code occurs throughout the life cycle
- g. Continual customer interactions

Correct Answer: a. Easy to understand, easy to use, especially by inexperienced staff
b. Milestones are well understood by the team
c. Provides requirements stability during development
d. Strong management control (planning, staffing, tracking etc) on the project

Detailed Solution:

Iterative waterfall model is easy to understand and use, milestones are well understood, ensures requirement stability and strong management control. Please refer slides 60 of week 2 lecture material for more information.



QUESTION 5:

Which of the following project characteristics would suggest that a waterfall model-based development would be appropriate?

- a. Requirements are well defined and stable
- b. Technology is understood
- c. Development team have experience with similar projects
- d. Delivery date has been aggressively set
- e. Substantial reuse of code is targeted

Correct Answer: a. Requirements are well defined and stable
b. Technology is understood
c. Development team have experience with similar projects

Detailed Solution:

Delivery date and code reuse is not considered in waterfall model. Please refer slide 62 of week 2 lecture material for more information.

QUESTION 6:

Which of the following are not known shortcomings of the iterative waterfall model of software development?

- a. All requirements must be known upfront
- b. Can give a false impression of progress
- c. Integration is one big bang at the end
- d. Little opportunity for customer to pre-view the system.
- e. Inadequate documentation produced as part of the process
- f. Number of phases in the model is ill defined

Correct Answer: e. Inadequate documentation produced as part of the process
f. Number of phases in the model is ill defined

Detailed Solution:

Inadequate documentation and number of phases are not known shortcomings of iterative waterfall model. For more information, please refer slide 62 of week 2 lecture material.



QUESTION 7:

Which one of the following may be experienced by a software development team when it adopts a systematic development process model in preference to a build-and-fix style of development?

- a. Increased documentation overhead
- b. Increased development cost
- c. Increased maintainability
- d. Increased development time
- e. Increased code size
- f. Increased code efficiency

Correct Answer: a. Increased documentation overhead
c. Increased maintainability

Detailed Solution:

A software development team when it adopts a systematic development process model in preference to a build-and-fix style of development experience increased documentation overhead and maintainability.

QUESTION 8:

Prototyping life cycle model is appropriate when a project suffers from which one of the following risks?

- a. Schedule slippage
- b. Manpower turnover
- c. Incomplete and uncertain requirements
- d. Poor quality of outsourced work
- e. Technological obsolescence

Correct Answer: c. Incomplete and uncertain requirements

Detailed Solution:

Prototyping model is best suited when the requirement is unclear. For more information, please refer slide 80 of week 2 lecture material.



QUESTION 9:

Which of the following sections are **not** important to an effective business case document and can be omitted?

- a. Cost
- b. Benefit
- c. Risk
- d. Configuration management
- e. Team structure

Correct Answer: d. Configuration management
e. Team structure

Detailed Solution:

Configuration management and team structure are not essential for an effective business case document. Therefore, these can be omitted. You can refer slide 133 of week 2 lecture material for additional information.

QUESTION 10:

The operation phase of the waterfall model is a synonym for which one of the following phases?

- a. Coding and unit testing phase
- b. Integration and system testing phase
- c. Maintenance phase
- d. Design phase
- e. Requirements specification phase

Correct Answer: c. Maintenance phase

Detailed Solution:

Most of the maintenance activities are performed in operation and maintenance phase. Hence, these two terms are synonymous.

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