



Software Engineering Assignment- 0

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 most accurately defines the term *software process model*?

- a. The way in which software is developed
- b. The way in which software processes data
- c. The way in which software is used
- d. The way in which software behaves
- e. The way in which software is structured

Correct Answer: a. The way in which software is developed

Detailed Solution:

Software process model refers to the way in which software is developed.

QUESTION 2:

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. Both testing and maintenance phases



Correct Answer: a. Implementation phase

Detailed Solution:

Unit testing is carried out by developers during implementation phase.

QUESTION 3:

Which one of the following phases accounts for the maximum effort during development of a typical software product?

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

Correct Answer: b. Testing

Detailed Solution:

Testing phase accounts for maximum effort during a software development life cycle.

QUESTION 4:

Which of the following activities are carried out during the testing phase of the waterfall life cycle model?

- a. Unit testing
- b. Integration testing
- c. System testing
- d. Code walkthrough
- e. Code inspection

Correct Answer: b. Integration testing
c. System testing



Detailed Solution:

Integration and system testing are carried out during testing phase, while unit testing, code walk through, and code inspection are done during development process.

QUESTION 5:

In which of the following SDLC models, testing activities are spread over the entire development life cycle?

- a. Iterative waterfall model
- b. V model
- c. Prototyping model
- d. Agile model
- e. Classical waterfall model

Correct Answer: b. V model
d. Agile model

Detailed Solution:

In V-model and Agile model, testing activities are spread over the entire development life cycle.

QUESTION 6:

Defects get introduced into a work product due to mistakes committed by the members of the development team. A mistake in an activity pertaining to which one of the following phases is likely to be most expensive to correct when detected during system testing?

- a. System testing
- b. Design
- c. Coding and unit testing
- d. Requirements analysis and specification
- e. Maintenance

Correct Answer: d. Requirements analysis and specification

Detailed Solution:

As the development of a software gets underway using waterfall model of development, the later the phase in which a defect gets detected, the more expensive is its removal. The artefacts developed during phases preceding the phase in which a defect occurs need to be reworked



QUESTION 7:

Which one of the following phrases would most appropriately complete the sentence: “The later a defect is found during a traditional software development cycle _____.”

- a. the less troublesome it is
- b. the more expensive it is to repair
- c. the less important it is to the product’s operation
- d. the more important it is to the product’s operation
- e. the less expensive it is to repair
- f. the more troublesome it is

Correct Answer: b. the more expensive it is to repair

Detailed Solution:

As the development of a software gets underway using waterfall model of development, the later the phase in which a defect gets detected, the more expensive is its removal. The artefacts developed during phases preceding the phase in which a defect occurs need to be reworked

QUESTION 8:

For a typical software product, testing should account for what percentage of the total software development costs?

- a. 5-10
- b. 10-20
- c. 30-40
- d. 40-50
- e. 85-95

Correct Answer: d. 40-50

Detailed Solution:

Testing accounts for approximately 40-50% of total development costs since more effort is required in this phase.



QUESTION 9:

In the prototyping life cycle model, which one of the following is the principal reason for developing a prototype?

- a. It can be used as an early production tool.
- b. It may serve as a performance benchmark for the completed software.
- c. It allows the customer to provide feedback about requirements.
- d. It reduces the schedule for development through alpha testing of the prototype.
- e. It serves as an animated requirement of the system

Correct Answer: c. It allows the customer to provide feedback about requirements.
e. It serves as an animated requirement of the system

Detailed Solution:

Prototyping model allows customers to provide feedback about the requirement and also serves as an animated requirement of the system.

QUESTION 10:

Unrestricted use of GO TO statements is normally avoided while writing a program, since:

- a. It increases the running time of programs
- b. It increases memory requirements of programs
- c. It results in larger executable code sizes
- d. It makes debugging difficult
- e. It increases the effort required to adequately test the software

Correct Answer: d. It makes debugging difficult
e. It increases the effort required to adequately test the software

Detailed Solution:

Unrestricted use of GOTO statements in a program makes it difficult to debug and also increases the effort required to adequately test the software.

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