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Indian Institute of Technology Kharagpur



Software Testing

Assignment- 0

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 10 Total mark: $10 \times 1 = 10$

For each of the following questions one or more of the given options are correct. Choose the correct option(s).

OUESTION 1:

Why is writing easily modifiable code is important?

- a. Easily modifiable code results in quicker run time.
- b. Most real world programs require changes to be made at some point of time or other.
- c. Most text editors make it mandatory to write modifiable code.
- d. Several people may be writing different parts of code at the same time.
- e. Easily modifiable code gives runs faster

Correct Answer: b. Most real world programs require changes to be made at some point of time or other

Detailed Solution:

Most Real-world software of programs require updation or code alteration at some point of time. So, it is important to write easily modifiable code.

OUESTION 2:

When during the development cycle is code review carried out?

- a. After coding is complete and before the code is compiled.
- b. After module specification is complete
- c. After coding is complete and after the code is compiled.
- d. After unit testing is over
- e. After system testing is over

Correct Answer: c. After coding is complete and after the code is compiled

Detailed Solution:

Code review carried out after coding is done and the code is compiled successfully. So, option **c.** is correct.



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OUESTION 3:

The implementation 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. Specification phase

Correct Answer: a. Coding and unit testing phase

Detailed Solution:

In Implementation phase of the waterfall model, each unit is developed and tested for its functionality, which is referred to as Unit Testing.

OUESTION 4:

Which one of the following can be said about verification activities carried out during software development?

- a. Checking whether we are building the right software
- b. Checking whether we are building the software right
- c. Performed by an independent test team
- d. Performed by the customer
- e. Performed after all modules have been integrated

Correct Answer: b. Checking whether we are building the software right

Detailed Solution:

Verification check whether we are building the software correctly. On the other hand, validation check whether we are building the right software.



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OUESTION 5:

Which of the following activities is/are not carried out during the testing phase of the waterfall life cycle model?

- a. Unit testing
- b. Integration testing
- c. System testing
- d. Performance testing
- e. Debugging

Correct Answer: a. Unit testing

Detailed Solution:

Unit testing is carried out during implementation phase. So, the Unit testing is not carried out during the testing phase.

OUESTION 6:

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. Classical waterfall model
- e. Agile models

Correct Answer: b. V model, e. Agile models

Detailed Solution:

The **V-model** is a type of SDLC **model** where process executes in a sequential manner in **V**-shape. It is also known as Verification and Validation **model**. It is based on the association of a testing phase for each corresponding development stage. Agile methodology is a practice which promotes continues interaction of development and testing during the SDLC process of any project.



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OUESTION 7:

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:

The defects introduced in **Requirement analysis and specification** are harder to deal with and most expensive to correct.

OUESTION 8:

Which one of the following phrases would most appropriately complete the sentence: "The later a defect is found, ."

- a. the easier it is to find
- b. the less important it is to the product's correct working
- c. the faster it gets fixed
- d. the cheaper it is to fix
- e. the more expensive it is to fix

Correct Answer: e. The more expensive it is to fix

Detailed Solution: The below image is the correct explanation of the question:

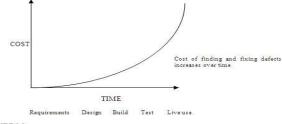


FIGURE 1.2



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OUESTION 9:

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

- a. 5-10
- b. 10-20
- c. 40-50
- d. 80-90
- e. 90-99

Correct Answer: c. 40-50

Detailed Solution:

Testing account 40-50% of the total software development costs.

OUESTION 10:

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

- a. It is used by the customers till the final delivery of the complete software.
- b. It serves as a performance benchmark for the completed software.
- c. It allows the customers to provide feedback about the functional requirements.
- d. It reduces the development time through alpha testing of the prototype.
- e. It helps eliminate the coding phase

Correct Answer: c. It allows the customers to provide feedback about the functional requirements.

Detailed Solution:

A working **prototype** helps the customer to provide meaningful feedback about the requirements.

**********END*******