

UNIT – IV

Testing Strategies and Metrics for Process and Products

PART – A: Multiple Choice Questions (MCQs)

- Software testing is performed to:
 - A) Increase coding time
 - B) Find defects in software
 - C) Reduce documentation
 - D) Replace maintenance

Answer: B) Find defects in software
- A strategic approach to software testing aims to:
 - A) Eliminate coding
 - B) Ensure software quality
 - C) Increase project cost
 - D) Reduce requirements

Answer: B) Ensure software quality
- Which testing technique focuses on internal program structure?
 - A) Black-box Testing
 - B) White-box Testing
 - C) Validation Testing
 - D) System Testing

Answer: B) White-box Testing
- Which testing technique focuses on functional requirements?
 - A) White-box Testing
 - B) Unit Testing
 - C) Black-box Testing
 - D) Integration Testing

Answer: C) Black-box Testing
- Black-box testing is also known as:
 - A) Structural Testing
 - B) Glass-box Testing
 - C) Functional Testing
 - D) Path Testing

Answer: C) Functional Testing
- White-box testing is also called:
 - A) Functional Testing
 - B) Behavioral Testing
 - C) Structural Testing
 - D) Acceptance Testing

Answer: C) Structural Testing

7. Validation testing ensures that:
- A) The software is built correctly
 - B) The right software is built
 - C) Coding standards are followed
 - D) Hardware compatibility exists
- Answer: B) The right software is built**
8. System testing evaluates:
- A) Individual modules
 - B) The complete integrated system
 - C) Only user interfaces
 - D) Only databases
- Answer: B) The complete integrated system**
9. Debugging is the process of:
- A) Writing test cases
 - B) Finding and correcting defects
 - C) Gathering requirements
 - D) Designing software
- Answer: B) Finding and correcting defects**
10. Software measurement helps in:
- A) Reducing hardware costs
 - B) Quantifying software attributes
 - C) Writing code
 - D) Database design
- Answer: B) Quantifying software attributes**
11. Metrics are used to:
- A) Measure software processes and products
 - B) Replace testing
 - C) Eliminate defects
 - D) Develop user interfaces
- Answer: A) Measure software processes and products**
12. Which metric is related to software quality?
- A) Reliability
 - B) Processor Speed
 - C) Memory Size
 - D) Network Speed
- Answer: A) Reliability**
13. The primary objective of system testing is to:
- A) Test individual functions
 - B) Verify the entire system behavior
 - C) Check coding style
 - D) Measure productivity
- Answer: B) Verify the entire system behavior**
14. White-box testing requires knowledge of:
- A) User requirements only
 - B) Internal code structure
 - C) Hardware specifications
 - D) Documentation standards
- Answer: B) Internal code structure**
15. Software quality metrics help in evaluating:
- A) Project location

- B) Software performance and reliability
 - C) Employee attendance
 - D) Hardware cost
- Answer:** B) Software performance and reliability

PART – B: Fill in the Blanks

1. Software testing is used to identify **Defects** in software.
2. Black-box testing focuses on software **Functionality**.
3. White-box testing examines the internal **Structure** of the program.
4. Validation testing ensures that the **Right Software** has been built.
5. System testing tests the complete **Integrated System**.
6. Debugging is the process of finding and correcting **Errors**.
7. Software measurement is used to quantify software **Attributes**.
8. Metrics are measurements used for software **Processes** and products.
9. Reliability is an important software quality **Metric**.
10. Black-box testing is also called **Functional Testing**.
11. White-box testing is also known as **Structural Testing**.
12. The art of finding defects is called **Debugging**.
13. System testing is performed after **Integration** testing.
14. Software quality metrics help improve software **Quality**.
15. Testing is an important activity in **Software Engineering**.



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