1. Refers to the process of monitoring and analyzing various aspects of the testing process and the software under test.

A. Program Tracking

B. Identifying Defects Early

C. Test Prioritization

D. Continuous Feedback Loop

2. Program tracking allows AST tools to monitor code changes and trigger relevant test cases automatically.

A. Continuous Feedback Loop

B. Test Prioritization

C. Identifying Defects Early

D. Program Tracking

3. With program tracking, AST tools can prioritize test execution based on the impact of code changes.

A. Identifying Defects Early

B. Test Prioritization

C. Program Tracking

D. Adaptability to Change

4. Program tracking facilitates real-time feedback between development and testing activities.

A. Root Cause Analysis

B. Adaptability to Change

C. Test Prioritization

D. Continuous Feedback Loop

5. In case of test failures, program tracking provides insights into the root causes of issues.

A. Adaptability to Change

B. Root Cause Analysis

C. Program Tracking

D. Identifying Defects Early

6. What is the primary goal of meticulously analyzing and validating requirements in defect prevention?

A. To identify defects during testing

B. To ensure software requirements are met

C. To conduct code reviews

D. To prioritize software features

7. Which activity is essential for maintaining a comprehensive understanding of defects after analysis and review?

A. Root cause analysis

B. Pair programming

C. Defect logging and documentation

D. Test-driven development

8. What is the main benefit of implementing pair programming according to the presentation?

A. Accelerating the development process

B. Reducing the likelihood of defects in later stages

C. Minimizing the need for code reviews

D. Decreasing the need for automated testing

9. How does Test-Driven Development (TDD) contribute to defect prevention as mentioned in the slides?

A. By automating the testing process

B. By writing tests before coding

C. By ensuring compliance with requirements

D. By identifying errors early in development

10. Which technique helps ensure that established standards are followed during development based on the presentation?

A. Training and skill development

B. Pair programming

C. Test-Driven Development (TDD)

D. Utilizing checklists

11. Which characteristic of good automated testing metrics refers to the degree to which something is connected or pertinent to a particular topic, situation, or context.

A. Actionability

B. Relevance

C. Measurability

D. Interpretability

12. Which characteristic of good automated testing metrics involves determining whether an attribute, phenomenon, or outcome can be assessed or evaluated using specific criteria, metrics, or instruments to track its progress, performance, or impact.

A. Actionability

B. Relevance

C. Measurability

D. Interpretability

13. Which characteristic of good automated testing metrics refers to the quality of being actionable, meaning that something can be acted upon or used to take practical steps or make decisions.

A. Actionability

B. Relevance

C. Measurability

D. Interpretability

14. Which characteristic of good automated testing metrics refers to the ease with which something can be understood, explained, or interpreted.

A. Actionability

B. Relevance

C. Measurability

D. Interpretability

15. In the characteristics of good automated testing metrics, which aspect is not directly connected to relevance?

A. Alignment with business objectives

B. Minimizing irrelevant results

C. Aligning with project requirements

D. Maximizing relevant outcomes

16. Which metric quantifies the number of defects relative to the size of the module or release, providing insight into the quality of the codebase?

A. Defect Leakage

B. Defect Density

C. Defect Removal Efficiency

D. Defect Category

17. What does defect leakage measure in the testing process before user acceptance testing (UAT)?

A. The effectiveness of defect removal methods

B. The distribution of defects based on various quality criteria

C. The number of defects missed by the testing team

D. The impact of defects on the software's quality and efficiency

18. What does Defect Removal Efficiency (DRE) evaluate in the testing phases?

A. The effectiveness of defect removal methods

B. The efficiency of test cases in detecting defects

C. The impact of defects on the software's quality

D. The completeness of testing activities

19. What do defect category metrics provide a breakdown of?

A. Defect severity levels

B. Testing process effectiveness

C. Defects missed by the testing team

D. Defects based on various quality criteria

20. What does test coverage assess in testing activities?

A. The efficiency of test case preparation efforts

B. The completeness of testing activities

C. The impact of defects on the software's quality

D. The distribution of defects based on various quality criteria

21. AST metrics help measure the extent to which automated tests cover different parts of the software under test.

A. Test Execution Time

B. Test Coverage

C. Resource Utilization

D. Regression Testing

22. AST metrics allow teams to track the effectiveness of automated tests in detecting defects.

A. Defect Detection

B. Test Coverage

C. Test Execution Time

D. Regression Testing

23. AST metrics provide insights into the efficiency of automated test execution.

A. Defect Detection

B. Test Coverage

C. Resource Utilization

D. Test Execution Time

24. AST metrics help teams evaluate the resource utilization of their automated testing infrastructure.

A. Test Execution Time

B. Resource Utilization

C. Test Coverage

D. Defect Detection

25. AST metrics assist in measuring the effectiveness of automated regression testing.

A. Defect Detection

B. Test Execution Time

C. Regression Testing

D. Test Coverage

26. RCA plays a crucial role in enhancing the reliability of automated tests and the accuracy of test results.

A. Optimizing Test Efficiency

B. Issue Resolution

C. Improving Test Reliability

D. None of the above

27. RCA allows teams to analyze the efficiency of their automated testing processes and identify areas for optimization.

A. Optimizing Test Efficiency

B. Improving Test Reliability

C. Issue Resolution

D. None of the above

28. RCA in AST helps pinpoint the underlying causes of test failures, anomalies, or performance bottlenecks.

A. Improving Test Reliability

B. Issue Resolution

C. Optimizing Test Efficiency

D. None of the above

29. What strategic approach empowers teams to enhance their testing efficiency through RCA?

A. Issue Resolution

B. Improving Test Reliability

C. Optimizing Test Efficiency

D. None of the above

30. What pivotal function does RCA serve in elevating the reliability of automated tests, ultimately leading to enhanced accuracy in test results?

A. Improving Test Reliability

B. Optimizing Test Efficiency

C. Issue Resolution

D. None of the above

ANSWER KEY:

1. A
2. C
3. B
4. D
5. B
6. B
7. C
8. B
9. B
10. D
11. B
12. C
13. A
14. D
15. D
16. B
17. C
18. A
19. D
20. B
21. B
22. A
23. D
24. B
25. C
26. C
27. A
28. B
29. C
30. A