

Certified Software Quality Engineer Exam

1. Which of the following measures describes the number of independent linear paths through a module?

A. Lines of code

B. Function points

C. Defect density

D. Cyclomatic complexity

Answer(s): D

2. Which of the following inputs is used in software cost estimation models?

A. Lines of code

B. Number of users

C. Age of the software

D. Maintenance requirements

Answer(s): A

3. A project team conducts a review of its latest software design. The review process is well-defined and is used by all projects within the company. As part of the review process, defect levels are compared against acceptable limits to determine appropriate corrective action. According to the CMMI-DEV V1.2, which of the following activities could the company perform to demonstrate characteristics unique to a Maturity Level 5 organization?

A. Submit defect data to a team for future defect prevention.

B. Collect defect data for each project's specific software process.

C. Record defect data and establish the process capability baseline

D. Assess the validity of each defect data measurement independently.

Answer(s): A

4. Which of the following diagrams is most appropriate for showing the relationship between software design input requirements and software design output?

A. Tree

B. Matrix

C. Affinity

D. Ishikay

Answer(s): B

5. The following graph depicts errors per 1,000 lines of code (KLOC) for modules S, T, U, and V.

A. S

B. T

C. U

D. V

Answer(s): C

6. The executive summary of a project management report should emphasize details related to

A. completed tasks

B. testing deliverables

C. risks to the project

D. stage phase containment status

Answer(s): C

7. An environmental monitoring software system is required to measure ambient temperature and sound an alarm if the temperature drops below 19 °C or rises above 21 °C. Which of the following observed test results would be an error for this system?

A. Temperature Display: 20 °C Alarm Status: Silent

B. Temperature Display: Cannot measure Alarm Status: Silent

C. Temperature Display: 15 °C Alarm Status Ringing

D. Temperature Display: 21 °C Alarm Status Silent

Answer(s): D

8. After test procedures have been executed and problems have been identified, the next step should be to

A. begin updating the test cases and perform a retest

B. release the product to the customer

C. implement appropriate changes to the code

D. develop plans to resolve the issues reported

Answer(s): C

9. A software engineer collected the following data set during testing

A. They are appropriate.

B. They are unrelated to the data set

C. They fail to describe the full range of data

D. They should be whole numbers since the data are whole numbers

Answer(s): A

10. Results from a process audit show that the requirements group does not control changes to its software specifications. Which of the following basic requirements should be added to the software configuration management (SCM) policy?

A. SCM must be implemented throughout the project's lifecycle.

B. SCM must be implemented for externally deliverable software products

C. Responsibility- for SCM must be explicitly assigned for each project

D. Each project must have an established repository for storing configuration items.

Answer(s): C

11. Which of the following methodologies is most appropriate for managing test data?

A. Establishing separate cases for each level

B. Creating a central repository for data items

C. Using data items from the operational environment

D. Identifying data items that have become defective over time

Answer(s): B

12. In the following control diagram, all paths are feasible and the decisions are not correlated to each other.

A. 2

B. 4

C. 6

D. 8

Answer(s): B

13. During what activity would it be appropriate for a team to use a complexity analyzer?

A. Requirements analysis

B. Requirements traceability

C. Test planning

D. Test execution

Answer(s): C

14. Coverage monitors are used during which of the following types of testing?

A. Black-box

B. White-box

C. Stress

D. Equivalence partitioning

Answer(s): B

15. Under design control, the design phase should proceed until

A. system elements of the smallest structure are defined and specified

B. the developers understand the level of work expected

C. the allocated time for system design has been reached

D. every possible design variation has been explored

Answer(s): A

16. Which of the following statements is true about a walk-through?

A. Its objective is to correct defects

B. It is facilitated by a manager

C. The presenter is the developer.

D. formal database is required.

Answer(s): C

17. Software configuration status accounting is the process of

A. partitioning the software product into formally identified configuration items

B. systematically controlling changes to software items under configuration control

C. recording and reporting of information needed to effectively manage a software configuration

D. providing objective assurance that the software configuration items being built match their requirements

Answer(s): C

18. In lean software development extra features should be identified as

A. potential re-use elements

B. an internal cost of quality

C. defects

D. waste

Answer(s): D

19. The modules in the following table were all created two years ago as part of the same software project

Current	Cyclomatic	Module	Version	Complexity			
A	129	B	321	C	94	D	1120

Which module is the most likely candidate for reengineering?

A. Option a

B. Option b

C. Option c

D. Option d

Answer(s): B

20. The best way to reduce post-release defect density in future releases is to

A. provide online help for known defects

B. categorize defects and perform analyses to uncover their causes

C. evaluate defect arrival rates and analyze defect resolution costs

D. maintain a responsive helpdesk function to identify recurring problems

Answer(s): B
