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Read Online CTFL-AuT Test Practice Test Questions Exam Dumps Easily To Pass New CTFL-AuT Premium Exam Updated [Aug 02, 2022 QUESTION 10]

As a unit tester (.module tester”;) you are working on a project and are supposed to develop a test strategy.

Which of the following test and analysis procedures is, according to Automotive SPICNOT an appropriate clamant of a verification strategy for unit tests (software units), which ware “manually coded”?;

Note The components to verify are non-safety relevant and safely relevant (up to ASIL-C) components

- * Tool supported static analysis
- * Hardware-in-the-Loop-Tests
- * Unit tests (Test of Software-Units)
- * Code-Reviews

QUESTION 11

Which statement regarding the contribution of the tester to a safety culture is true?

- * The tester performs the hazard analysis and the risk assessment for the product at the beginning of the project.

- * The tester always takes the overall context of the product development into account when she/he executes their tasks
- * In systems that could potentially lead to physical injury or damage to the health of people the tester analyses potential hazards.
- * The tester creates the hardware-software interface and provides this document to the safety manager

QUESTION 12

In Automotive SPICE, which capability level in software Integration testing is characterized by the following statement: „Define the objectives for the execution of the process.“

- * Capability level 2
- * Capability level 0
- * Capability level 1
- * Capability level 3

Explanation

https://www.automotivespice.com/fileadmin/software-download/Automotive_SPICE_PAM_30.pdf

QUESTION 13

Which of the following measures is MOST suitable for dealing with the increasing complexity of product development?

- * Recruitment of additional employees
- * Use of experienced employees as coaches for new inexperienced employees
- * Creation of new subsidiaries (e.g. Romania, India)
- * Use of several models as variants of a common platform

QUESTION 14

You are a tester in a team and you are supposed to test diagnostic functions and bus communications on the CAN bus. The development team provides you with compiled software code and control unit hardware. Which test environment is the best choice considering the test types?

- * A MiL test environment, as the compiled software code can be integrated cost efficiently into an environment model.
- * A SaL test environment, since the performance of the bus communication can be tested better in this test environment.
- * A Hi test environment, as the bus communication with other participants can be tested close to reality
- * Diagnostic functions and bus communications can only be tested in the vehicle.

QUESTION 15

Which example describes a typical application of a closed-loop system?

- * Activating the hazard warning lights is to be tested. To do so, the flashing lights are monitored and the flashing frequency is measured and assessed.
- * The setting of an error memory entry in the motor control unit is to be tested. To do so, the motor temperature is increased above the critical limit and afterwards, the subsequent error memory entry will be read and assessed.
- * The correct reaction of the windscreen wiper is to be tested. To do so, the rain sensor is activated by water on the screen and the windscreen wiping activities are monitored.
- * A cruise control is to be tested by reaching the target speed in a given time and holding this speed despite outside disturbances. Different driving scenarios are simulated for this.

QUESTION 16

Which of the statements regarding traceability in Automotive SPICE3.x is true?

- * The linking of requirements, test cases and test tools provides traceability and enables the desired verification of test cases for test

case coverage

- * A1:N relation exists; for example If a test case is tested with the help of several requirements and is therefore linked to several requirements
- * The linking of a requirement, a derived test case and the associated test implementation provides the base for a complete testability.
- * With complete tractability It Is possible to trace test cases to their requirements and test cases which have been executed to their corresponding results.

QUESTION 17

Which statement regarding AUTOSAR Is TRUE?

AUTOSAR describes

- * a collection of characteristics of the performance of processes of an organization.
- * an open and standardized software architecture for vehicle development.
- * an analysis unit, which processes Input signals and determines intermediate values and their respective output signals by using existing information.
- * activities, methods and measures to achieve functional security for electric and electronic solutions.

Explanation

<https://www.pathpartnertech.com/software-architecture-autosar-for-automotive-embedded-system/>

QUESTION 18

ISO 26262 recognizes several context factors which influence the selection of testing techniques. Which statement is correct? Please choose the BEST POSSIBLE answer.

- * An testing techniques are always applied to one test basis. The specific techniques, e.g. equivalence partition analysis, however, can always be applied.
- * ISO 26262 recommends specific testing techniques depending on the ASH level. Furthermore, the current state of technology must be considered
- * The risk assessment provides insights regarding the risks, whose causes will then be tested Intensively (independent of the testing technique).
- * For the selection and the applicability of the test techniques, the test basis is important, but not the test level.

QUESTION 19

Your company produces electric windows and corresponding control units. The newest control unit for electric windows has repeatedly been problematic, which you think result from issues in the requirements, in particular, you noticed the following requirements in your first review.

Which of the following requirements for the system test violates at least one of the quality criteria of the ISO/IEC/IEEE 29148:2011 ?

ID; 12. When the central lock is activated, then all windows are automatically closed.

ID; 37 Given: the ignition is activated. When the button for a window is pressed down, then the window moves down.

ID; 85: Given: the window moves up. When the window encounters resistance, then the window driving motor stops.

ID; 142; Given: a door is open When the button for a window is pressed then the message M-85 is sent to the control unit

- * The requirement 85 is not atomic
- * The requirement 37 is Inconsistent on system level.
- * The requirement 12 is ambiguous.
- * The requirement 142 is not verifiable on system level

QUESTION 20

The following methods table shows a partial functional safety guideline of an OEM (Car Maker):

Methods		ASIL			
		A	B	C	D
1a	Statement coverage	++	++	+	+
1b	Decision coverage	+	++	++	++
1c	Condition coverage	+	+	+	++

What do the plus symbols in the table mean for the tester of the supplier?

- * The tester of the supplier must choose an appropriate combination of methods and explain his choice.

The methods with a double plus symbol should be given higher consideration

- * Single plus symbol means .should be applied by the tester of the supplier; double plus symbol means

can be applied by the tester of the supplier.

- * A single plus symbol means .must be covered by each tester of the supplier; double plus symbol means

must be tested for applicability by the tester of the contractor.

- * Single plus symbol means .must be applied by the tester of the supplier; double plus symbol means can be applied by the tester of the supplier

QUESTION 21

Which of the following statements regarding MIL test environments is true?

- * For a MIL test environment NO environmental model is necessary
- * In the MIL test environment, stimulations and observations are possible anywhere via access points.
- * In the MIL test environment, the test object is available as compiled code and it is not readable by a human being.
- * In the MIL test environment, additional hardware is necessary to implement access points.

QUESTION 22

Which statement regarding the design of a MIL test environment is TRUE?

- * To execute the tests, the tester needs a computer and the corresponding simulation software, including the environmental model.
- * Interface and integration tests are two test types or test levels that can only be applied in a MIL test environment.
- * In the MIL test environments, the simulation time runs in real time because the software is running on real hardware.
- * The test environment includes a real time capable computer, which can capture all relevant signals in real time

QUESTION 23

Which statement characterizes back-to-back testing?

- * Back-to-back testing is a variation of pair programming in which the testers should sit back to back to be able to work as independently as possible from each other.
- * Back-to-back testing compares test objects with mainly overlapping requirements to recognize the results of requirement change.
- * Back-to-back testing compares test objects which are based on the same requirements.
- * Back-to-back testing compares different execution environments of the same test object

QUESTION 24

Which statement regarding the objective of ASPICE and ISO 26262 is true?

- * To determine the capability of the product development process, ISO 26262 defines assessable requirements for these processes independently from the criticality. For the development of E/E systems.

ASPICE defines requirements for the processes and methods to be used by the tester depending on the ASIL.

- * For the development of E/E systems, ISO 26262 defines requirements for the processes and methods to be used by the tester depending on the ASIL. To determine the capability of the product development process, ASPICE defines assessable requirements for these processes, independently from the criticality
- * For the development of E/E systems, ISO 26262 defines requirements for the processes and methods to be used by the tester independently from the ASIL. To determine the capability of the product development process, ASPICE defines assessable requirements for those processes depending on the criticality.
- * To determine the capability of the product development process, ISO 26262 defines requirements for the processes and methods to be used by the tester depending on the ASIL. For the development of E/E systems, ASPICE defines assessable requirements for the processes, independently from the criticality.

QUESTION 25

Which of the following options describes a combination of typical parts of a HiL environment?

- * Breakout box, Software-Compiler, real parts
- * Test case simulator, rest bus simulation, power supply
- * Electric error simulation, signal processing, processor simulation
- * Power supply, real time capable computer electric error simulation

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<https://www.examslabs.com/ISQI/Automotive-Software-Tester/best-CTFL-AuT-exam-dumps.html>