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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Software Testing (course)

Course outline

How does an NPTEL online course work? ()

Pre-requisite Assignment ()

Week 1 ()

- ☒ Lecture 1 - Motivation (unit? unit=17&lesson=18)
- ☐ Lecture 2 - Terminologies (unit? unit=17&lesson=19)
- ☐ Lecture 3 - Testing based on Models and Criteria (unit? unit=17&lesson=20)
- ☐ Lecture 4 - Automation - JUnit as an example (unit? unit=17&lesson=21)

Week 1 : Assignment 1

The due date for submitting this assignment has passed.

Due on 2022-08-10, 23:59 IST.

Assignment submitted on 2022-08-09, 11:26 IST

1) Choose the right option to fill in the blank: Suppose a method M_1 calls a method M_2 , which in turn, calls another method M_3 . The level of testing that tests for the interface of calls from M_1 to M_2 and then to M_3 is called as **1 point**

- ☐ Functional testing.
- ☐ Unit testing.
- ☒ Integration testing.
- ☐ System testing.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Integration testing.

2) State true of false: A coverage criterion C_1 said to subsume another coverage criterion C_2 if there is at least one test case that satisfies C_1 which also satisfies C_2 . **1 point**

- ☐ True.
- ☒ False.

Yes, the answer is correct.

Score: 1

Accepted Answers:

False.

3) State true or false: Testing can be used to find **all** the errors in code. **1 point**

- ☒ True.
- ☐ False.

● Practice: Week 1 : Assignment 1 (Non Graded) (assessment? name=112)

● Quiz: Week 1 : Assignment 1 (assessment? name=136)

○ Week 1 Feedback Form: Software Testing (unit? unit=17&lesson=124)

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

Learning Materials ()

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No, the answer is incorrect.

Score: 0

Accepted Answers:

False.

4) Which of the following are practised in level 3 thinking during testing?

1 point

- ☐ Testing is a mental discipline, everyone in an organization strives to test thoroughly.
- ☐ Testing is done mainly by developers, to debug their code.
- ☒ Testing is done to identify failures and reduce risks.
- ☐ Testing is done to show absence of errors.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Testing is done to identify failures and reduce risks.

5) Which of the following best defines usability testing?

1 point

- ☐ Testing done to ensure that the software looks nice.
- ☐ Testing done to ensure that the software is usable by all the users.
- ☐ Testing done to understand how users can use a software.
- ☒ Testing done to ensure that the user interface of the software is as specified in the requirements.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Testing done to ensure that the user interface of the software is as specified in the requirements.

6) Which of the following is a list of white-box testing techniques?

1 point

- ☐ Unit testing, performance testing.
- ☐ Integration testing, stress testing.
- ☒ Unit testing, integration testing.
- ☐ Usability testing, performance testing.

Yes, the answer is correct.

Score: 1

Accepted Answers:

Unit testing, integration testing.

7) As per the lectures, which of the following sentences best defines a test case?

1 point

- ☐ A test case contains only inputs to the software artifact.
- ☒ A test case contains inputs to the software artifact along with the expected outputs.
- ☐ A test case contains inputs to the software artifact and a decision on pass or fail.
- ☐ A test case contains inputs to the software artifact, which is run and the actual output is also recorded as a part of the test case.

Yes, the answer is correct.

Score: 1

Accepted Answers:

A test case contains inputs to the software artifact along with the expected outputs.

Books ()

8) When do we say that a set of test cases T satisfies the test requirements TR for a **1 point** coverage criterion C ?

☐

For every test requirement $tr \in TR$, there is exactly one test case $t \in T$ such that t satisfies tr .

☐

For some test requirement $tr \in TR$, there is some test case t such that $t \in T$ such that t satisfies tr .

☐

For some test requirement $tr \in TR$, all the test cases $t \in T$ are such that t satisfies tr .

☒

For every test requirement $tr \in TR$, there is at least one test case $t \in T$ such that t satisfies tr .

Yes, the answer is correct.

Score: 1

Accepted Answers:

For every test requirement $tr \in TR$, there is at least one test case $t \in T$ such that t satisfies tr .

9) When do we say that a coverage criterion C_1 subsumes a coverage criterion C_2 ? **1 point**

☐

C_1 subsumes C_2 iff some test case that satisfies C_1 also satisfies C_2 .

☒

C_1 subsumes C_2 iff every test case that satisfies C_1 also satisfies C_2 .

Yes, the answer is correct.

Score: 1

Accepted Answers:

C_1 subsumes C_2 iff every test case that satisfies C_1 also satisfies C_2 .

10) What does the JUnit assertion `assertFalse(val1 > val2)` return when `val1` is less than `val2`? **1 point**

☐

True.

☒

False.

No, the answer is incorrect.

Score: 0

Accepted Answers:

True.