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



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Thank you for taking the Week 10 : Assignment 10.

Course outline

About NPTEL ()

How does an NPTEL online course work?

Week 0 ()

Week 1:()

Week 2: ()

Week 3: ()

Week 4: ()

Week 5: ()

Week 6: ()

Week 7: ()

Week 10 : Assignment 10

Your last recorded submission was on 2025-09-29, 12:25 IST Due date: 2025-10-01, 23:59 IST.

1) 1 point

A software development company specializes in developing accounting software. The data collected over several years shows that about 50% of bugs are detected during unit testing, 20% during integration testing, and 30% during system testing. Out of a total of 150 person months of testing planned, how much effort should be given to integration testing?

- a. 20 person-months
- b. 30 person-months
- c. 40 person-months
- d. 45 person-months
- e. 50 person months
- Оa.
- **O** b.
- O c.
- Od.
- Ое.

2) 1 point

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Week 9: ()

Week 10: ()

- Lecture 46:
 Unit testing
 strategies-I
 (unit?
 unit=89&lesson
 =90)
- Lecture 47:
 Unit testing
 strategies-II
 (unit?
 unit=89&lesson
 =91)
- Lecture 48:
 Equivalance
 Class Testing-I
 (unit?
 unit=89&lesson
 =92)
- Lecture 49:
 Equivalance
 Class Testing-II
 (unit?
 unit=89&lesson
 =93)
- Lecture 50 : Special Value Testing (unit? unit=89&lesson =94)
- Lecture
 Material For
 Week 10 (unit?
 unit=89&lesson
 =95)
- Quiz: Week 10: Assignment10(assessment?name=220)

Week 11: ()

Which one of the following are not black box testing techniques?

- a. Boundary value testing
- b. Cause-effect (Decision Table) testing
- c. Combinatorial testing
- d. Basic Condition testing
- e. Path testing

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| | | |
| | 121 | |

□ b.

□ c.

□ d.

✓ e.

3) 1 point

Assume that you have developed a simple web-based calculator. The UI has 3 input fields: Operand1, Operator, and Operand2. Operand1 and Operand2 can each take 9 values: {1, 2, ..., 9} and the Operator has 4 valid inputs: {+, -, *, /}. Assuming that that the GUI ensures that you can only enter valid inputs in all three input fields: How many test cases does exhaustive functional testing require?

- a. 3
- b. 22
- c. 256
- d. 324
- e. 525
- O a.
- Ob.
- O c.
- Od.
- Ое.

4) 1 point

| Asses X | essm eดพยใต ศ์itted. Videos () | |
|------------|---|--|
| | Text | |
| | Transcripts () | |
| | Live | |
| | Interactive | |
| | Session () | |
| | | |

Which one of the following are false about white-box testing? a. Test cases are designed using only the functional specification of the software: b. Test cases are designed without any knowledge of the internal structure of the software. c. Black-box testing is also known as structural testing. d. Test case design requires a knowledge of the internal structure of the unit under test e. Coverage-based testing is not the only white-box testing strategy **✓** a. **✓** b. **✓** c. \Box d. □ e. 5) 1 point Assume that a function test takes three parameters x,y, and z as arguments. Each of these three parameters can assume values in the range 0 to 100. How many boundary value test cases with valid values should be designed? a. 7 b. 9 c. 10 d. 13 e. 17 **О** а. Оb. Ос. Od. Ое. 6) 1 point

Assessment submitted. X

| Consider the fo | unction find-intersection(float m1,float c1, float m2, float c | :2) . It |
|---|--|-----------------|
| 는 원 | oint of intersection of two straight lines of the form y=mx+c . For equivalence | |
| and a series of the series of | irst level of the equivalent class hierarchy, the valid and invalid equivalence of | |
| can be formed. classes? | . The valid set of input values can be further divided into how many equiva | alence |
| ciasses: | | |
| | a. 1 | |
| | b. 2 | |
| | c. 3 | |
| | d. 5 | |
| | e. 6 | |
| o a. | | |
| ○ b. | | |
| O c. | | |
| ○ d. | | |
| ○ e. | | |
| 7) | | 1 point |
| Which one of the following is not a combinatorial testing technique? | | |
| | a. Decision table-based testing | |
| | b. Conditional testing | |
| | c. Cause-effect graphing | |
| | d. Boundary value testing | |
| | e. Pair-wise testing | |
| Оа. | | |
| ○a. ○b. | | |
| О с. | | |
| O d. | | |
| ○ e. | | |
| 0) | | |
| 8) | | 1 point |
| | | |
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| Assessment submitted. | Which one of the following is an implicit assumption made in equivalence class testing? |
|-----------------------|--|
| < | a. A program behaves in similar ways to every input value belonging to an equivalence class. |
| | b. Different equivalence classes of a program contain similar bugs |
| | c. Different equivalence classes of a program take identical inputs |
| | d. Equivalence classes define the behaviorally similar components of a program module |
| | e. Equivalence classes define the behaviorally similar functionalities of a software |
| | ○ a. |
| | ○ b. |
| | ○ c. |
| | ○ d. |
| | ○ e. |
| | 9) 1 point |
| | Which one of the following is an implicit assumption made in equivalence class testing? |
| | a. A program behaves in similar ways to every input value belonging to an equivalence class. |
| | b. Different equivalence classes of a program contain similar bugs |
| | c. Different equivalence classes of a program take identical inputs |
| | d. Equivalence classes define the behaviorally similar components of a program module |
| | e. Equivalence classes define the behaviorally similar functionalities of a software |
| | ✓ a. |
| | □ b. |
| | □ c. |
| | □ d. |

☐ e.

10)

1 point

| Assessment | submitted. |
|------------|------------|
| V | |

Which one of the following testing techniques is effective in testing whether a developed software meets its non-functional requirements?

- a. Path testing
- b. Dataflow testing
- c. Robust boundary-value testing
- d. Performance testing
- e. Black-box testing
- a.
- Ob.
- Ос.
- **O** d.
- Ое.

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers