NPTEL » Software testing Announcements

5.

6.

4?

No

No

Score: 0

Yes

No, the answer is incorrect.

Accepted Answers:

4?

About the Course

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Progress Mentor

Unit 10 - Week 8

Course outline Assignment 8 How to access the The due date for submitting this assignment has passed. portal As per our records you have not submitted this assignment. Pre-requisite Assignment answer the following three questions regarding language of words derived from the grammar Week 1 State yes or no: Can the string aab be generated by the grammar? Yes Week 2 O No Week 3 No, the answer is incorrect. Score: 0 Week 4 Accepted Answers: Week 5 2) Which of the following sets below correspond to the language generated by the given grammar? Week 6 $\{ab\}$ Week 7 $\{a^nb^n|n\geq 0\}$ Week 8 $\{a^nb^n|n\geq 1\}$ Syntax-Based Testing Mutatioon Testing $\{(ab)^n|n\geq 1\}$ Mutation Testing for No, the answer is incorrect. Programs Score: 0 • Mutation Testing: Accepted Answers: Mutation Operators $\{a^n b^n | n \ge 1\}$ for Source Code Mutation Testing Vs. language generated by the mutated Graphs and Logic grammar? Based Testing Feedback for week 8 a^2b Quiz : Assignment 8 $\{a^nb^na|n\geq 1\}$ Week 9 $\{a^{n+1}b^n|n\geq 0\}$ Week 10 $\{a^{n+1}b^n|n\geq 1\}$ Week 11 No, the answer is incorrect. Week 12 Score: 0 Accepted Answers: DOWNLOAD VIDEOS $\{a^{n+1}b^n|n\geq 1\}$ **Text Transcripts** applied? At least once Exactly once

```
Due on 2019-09-25, 23:59 IST.
 Given a context free grammar over a finite alphabet \Sigma = \{a,b\}, with the production rules S \to aSb and S \to ab,
                                                                                                                1 point
                                                                                                                1 point
 3) Consider a mutation of the production rule S 	o ab to S 	o a. The other rule is retained as it is. What will be the 1 point
 4) While doing mutation testing, what is recommended in terms of the number of times a mutation operator is
                                                                                                                1 point
    More than once
    As many times as possible
  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
  Exactly once
 5) Mutation of the statement if (x < 3 \&\& y >= 0) to the statement if (x <= 3 \&\& y >= 0) is an example 1 point
of which kind of mutation operator?

    Relational operator replacement

    Conditional operator replacement

    Arithmetic operation replacement

    Relational operator insertion

  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
  Relational operator replacement
 Consider the method findVal() below. Line 4 is mutated as 4' in the code below. Answer the following five questions
 related to the given mutant in the method
 // Effects: If array numbers is null, throw NullPointerException.
 // Else, return LAST occurrence of val in numbers[]. If val is
 // not in numbers[], return -1.

    public static int findVal(int numbers[], int val)

 2. {
 3. int findVal = -1;
 4. for (int i = 0; i < numbers.length; i++)</pre>
 4'. // for (int i = 1; i < numbers.length; i++)</pre>
 if (numbers[i] == val)
 findVal = i;
 return (findVal);
 8. }
                                                                                                                1 point
 State true or false: The mutant in line 4 is always reached, even if the array is null
   True
   False
  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
  True

    State yes or no: Is it possible to find a test input that satisfies reachability but not infection for the mutant in line 1 point

   Yes
   O No
  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
 8) State yes or no: Is it possible to find a test input that satisfies infection but not propagation for the mutant in line 1 point
   Yes
   O No
  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
  Yes
 9) Will the test input (numbers, val) = ([1,1],1) strongly kill the mutant in line 4?
                                                                                                                1 point
    Yes
   O No
  No, the answer is incorrect.
  Score: 0
  Accepted Answers:
 10) Will the test input (numbers, val) = ([1,2],1) strongly kill the mutant in line 4?
                                                                                                                1 point
    Yes
   O No
```