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Course outline

How does an NPTEL online course work? ()

Pre-requisite Assignment ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Lecture 15 - Data Flow Graph Coverage Criteria : Applied to Test Code (unit?unit=38&lesson=39)

Lecture 16 - Software Design and Integration Testing (unit?unit=38&lesson=40)

# Week 4 : Assignment 4

**The due date for submitting this assignment has passed.**

**Due on 2022-08-24, 23:59 IST.**

## Assignment submitted on 2022-08-24, 21:50 IST

1) Which of the following best describes a test driver? ***1 point***

- It is a special purpose implementation of a software module, used to develop or test a component that calls it.
- It is a software component that replaces another component that takes care of the control and/or the calling of a software component.

Yes, the answer is correct.
Score: 1
Accepted Answers:
*It is a software component that replaces another component that takes care of the control and/or the calling of a software component.*

2) If method A uses a variable v shared with method B, where A writes to v and B reads from v, then, it is an example of which kind of coupling interface listed below? ***1 point***

- Parameter coupling.
- Interface coupling.
- External coupling.
- Shared data coupling.

Yes, the answer is correct.
Score: 1
Accepted Answers:
*Shared data coupling.*

3) To test sequencing constraints that occur as requirements specification, which of the following tests are used? ***1 point***

- Lecture 17 - Design Integration Testing and Graph Coverage (unit?unit=38&lesson=41)
- Lecture 18 - Specification Testing and Graph Coverage (unit?unit=38&lesson=42)
- Lecture 19 - Graph Coverage and Finite state Machines (unit?unit=38&lesson=43)
- Practice: Week 4 : Assignment 4 (Non Graded) (assessment?name=115)
- **Quiz: Week 4 : Assignment 4 (assessment?name=139)**
- Week 4 Feedback Form: Software Testing (unit?unit=38&lesson=127)

**Week 5 ()**

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

**Week 10 ()**


- Tests are inputs to sequencing constraints that violate the constraints.
- Tests are inputs to sequencing constraints that satisfy the constraints.
- Tests are sequences of method calls, as they occur in the specification.
- Tests are randomly generated sequencing constraints.

Yes, the answer is correct.
Score: 1

Accepted Answers:
*Tests are sequences of method calls, as they occur in the specification.*

4) A simple path from the last definition to the first use of a coupling variable is called as . . . . . ..  ***1 point***

- A du-path.
- A coupling du-path.

Yes, the answer is correct.
Score: 1

Accepted Answers:
*A coupling du-path.*

5) State Yes or No: Are control flow graphs representing code the same as finite state machines that represent the same code?  ***1 point***

- Yes
- No

Yes, the answer is correct.
Score: 1

Accepted Answers:
*No*

Consider the graph below that depicts the calls to file handler methods **open(), close(),read()** and **write()**. Any procedure/method that uses these methods has to satisfy the following sequencing constraints: **(1) An open(f)** must be executed before every **write(t), (2) An open(f)** must be executed before every **close(), (3) A write(f)** may not be executed after a **close()** unless there is an **open(f)** in between, **(4) A write(t)** should be executed before every **close()**.

Week 11 ()

Week 12 ()

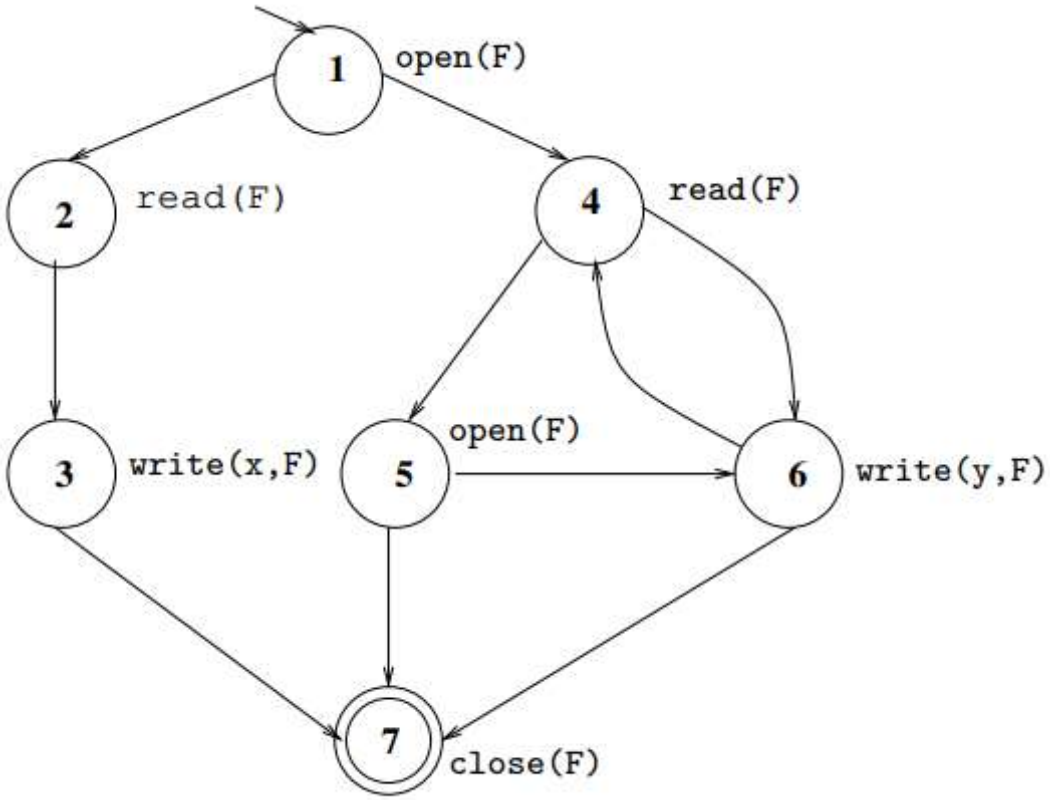
Learning Materials ()

DOWNLOAD VIDEOS ()

Text Transcripts ()

Live sessions ()

Books ()




Answer the following questions with reference to the sequencing constraints and the graph a method that uses these constraints.

6) Which of the following is true with reference to the graph satisfying the sequencing constraints? ***1 point***

- All the sequencing constraints are satisfied.
- Constraints (1) and (2) are satisfied but (3) and (4) are not.
- Constraints (1), (2) and (3) are satisfied but (4) is not.
- All constraints are violated.

Yes, the answer is correct.
Score: 1
Accepted Answers:
*Constraints (1), (2) and (3) are satisfied but (4) is not.*

7) State true or false: The path (1,4,5,7) satisfies constraint (4). ***1 point***

- True.
- False.

Yes, the answer is correct.
Score: 1
Accepted Answers:
*False.*

8) State true or false: The path (1,2,3,7) satisfies all the constraints. ***1 point***

- True.
- False.

Yes, the answer is correct.
Score: 1

Accepted Answers:
*True.*

9) State yes or no: Does the path (1,4,6,7) violate any of the constraints? ***1 point***

- ○ Yes.
- ◉ No.

Yes, the answer is correct.
Score: 1

Accepted Answers:
*No.*

10) State true or false: The path (1,4,6,4,6,7) satisfies all the constraints. ***1 point***

- ◉ Yes.
- ○ No.

Yes, the answer is correct.
Score: 1

Accepted Answers:
*Yes.*