

Assessment sub
X



(<https://swayam.gov.in>)



(https://swayam.gov.in/nc_details/NPTEL)

manish.19230@knit.ac.in ▾

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



Register for
Certification
exam

(https://examform.nptel.ac.in/2022_04/exam_form/dashboard)

Thank you for taking the Week 4 : Assignment 4.

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

Week 4 : Assignment 4

Your last recorded submission was on 2022-08-24, 19:08 Due date: 2022-08-24, 23:59 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.
- 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.
- 3) To test sequencing constraints that occur as requirements specification, which of the following tests are used? **1 point**
 - ☐ 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.
- 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.

Testing (unit?
Assessment submitted
unit=38&lesson=40)
X

● 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 ()

DOWNLOAD
VIDEOS ()

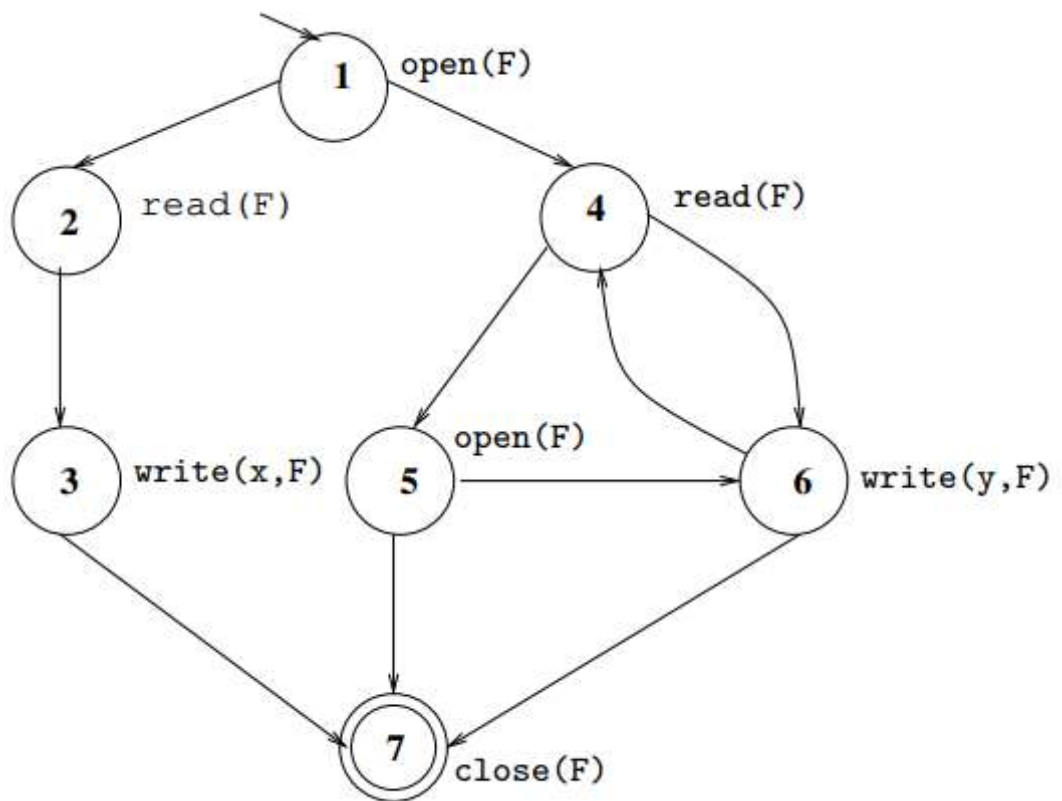
Text
Transcripts ()

Books ()

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

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()**.



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.

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

- ☐ True.

Assessment submitted.

X

☒ False.

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

1 point

☒ True.

☐ False.

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

1 point

☐ Yes.

☒ No.

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

1 point

☒ Yes.

☐ No.

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

Submit Answers