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<https://swayam.gov.in>https://swayam.gov.in/nc_details/NPTEL

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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Software Testing (course)Course
outlineHow does an
NPTEL
online
course
work? ()Pre-requisite
Assignment
()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

● Assignment 4:
Graph
Coverage
Criteria (unit?
unit=45&lesson=46)● Logic: Basics
Needed for
Software
Testing (unit?
unit=45&lesson=47)

Week 5 : Assignment 5

The due date for submitting this assignment has passed.

Due on 2022-08-31, 23:59 IST.

Assignment submitted on 2022-08-31, 20:49 IST

1) State true or false: GACC subsumes predicate coverage.

1 point

☐ True.☒ False.

Yes, the answer is correct.

Score: 1

Accepted Answers:

False.

2) When we test to check if a particular clause does not determine a predicate, which kind of coverage criteria are we considering? 1 point

☐ Active coverage criteria.☒ Inactive coverage criteria

Yes, the answer is correct.

Score: 1

Accepted Answers:

Inactive coverage criteria

3) Which of the following represents a correct order of subsumption amongst logic coverage criteria? In the options below, read → as 'subsumes'. 1 point

☐ Correlated active clause coverage → Predicate coverage → Clause coverage.☐ Combinatorial coverage → Predicate coverage → Clause coverage.☒ Combinatorial coverage → Correlated active clause coverage → Predicate coverage.☐ General active clause coverage → Correlated active clause coverage → Clause coverage.

Logic:
Coverage
Criteria (unit?
unit=45&lesson=48)

Coverage
Criteria,
Contd. (unit?
unit=45&lesson=49)

Logic
Coverage
Criteria (unit?
unit=45&lesson=50)

Week 5
Feedback
Form:
Software
Testing (unit?
unit=45&lesson=128)

Quiz: Week 5
: Assignment
5
(assessment?
name=140)

Week 6 ()

Week 7 ()

Week 8 ()

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

Learning
Materials ()

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Transcripts ()

Live
sessions ()

Books ()

Yes, the answer is correct.

Score: 1

Accepted Answers:

Combinatorial coverage → Correlated active clause coverage → Predicate coverage.

Consider the logical predicate $p = a \vee (b \wedge c)$. Truth table for the predicate is given below with rows numbered from 1 to 8. T represents the Boolean value true and F represents the Boolean value false.

	a	b	c	p
1	T	T	T	T
2	T	T	F	T
3	T	F	T	T
4	T	F	F	T
5	F	T	T	T
6	F	T	F	F
7	F	F	T	F
8	F	F	F	F

Answer the following questions with reference to logical coverage criteria for this predicate and the given truth table.

4) Which of the following represents p_a , the conditions under which clause a determines p ?

1 point

- ☐ $b \wedge c.$
- ☐ $b \vee c.$
- ☒ $\neg b \vee \neg c.$
- ☐ $\neg b \wedge \neg c.$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$\neg b \vee \neg c.$

5) Which of the following represents p_b , the conditions under which clause b determines p ?

1 point

- ☐ $a \wedge c.$
- ☐ $a \vee c.$
- ☒ $\neg a \wedge c.$
- ☐ $\neg a \vee \neg c$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$\neg a \wedge c.$

6) Which of the following represents p_c , the conditions under which clause c determines p ? **1 point**

- ☒ $\neg a \wedge b.$
☐ $\neg a \vee b.$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$\neg a \wedge b.$

7) Which of the following represents GACC pairs for clause a ? Note: Numbers below represent row numbers from the truth table. **1 point**

- ☒ $\{2, 3, 4\} \times \{6, 7, 8\}.$
☐ $\{1, 3, 4\} \times \{5, 6, 7\}.$

Yes, the answer is correct.

Score: 1

Accepted Answers:

$\{2, 3, 4\} \times \{6, 7, 8\}.$

8) State true or false: GACC pairs for clauses b and c are the same. **1 point**

- ☐ True.
☒ False

Yes, the answer is correct.

Score: 1

Accepted Answers:

False

9) The set $\{(2, 6), (3, 7), (4, 8)\}$ is the set of RACC pairs for which clause? **1 point**

- ☒ Clause $a.$
☐ Clause $b.$

Yes, the answer is correct.

Score: 1

Accepted Answers:

Clause $a.$

10) State true or false: CACC pairs for clauses a , b and c are different from GACC pairs for these clauses. **1 point**

- ☐ True.
☒ False

Yes, the answer is correct.

Score: 1

Accepted Answers:

False

