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Courses » Symbolic Logic Announcements **Course** Ask a Question Progress Mentor FAQ

Unit 4 - Week 3:

Course outline

How to access Portal?

Week 1:

Week 2:

Week 3:

- Lecture 11: Propositional Logic: Semantics Basics of a Truth Table
- Lecture 12: Using Truth Table: Tautology, Contradiction, Contingent Propositions
- Lecture 13: Using Truth Table: Testing Arguments for Validity and Invalidity
- Lecture 14: Shorter Truth Table
- Lecture 15: Using Truth Table: Testing a Set of Propositions for consistency and

Week 3 Assignment 3

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2018-09-05, 23:59 IST.**

1) The statement variable has a fixed truth-value. **2 points**

- a) True
- b) False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) False

2) True or false? **2 points**

A statement is a tautology iff its negation is a contradiction.

- a) True
- b) False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) True

3) The correct symbolization of the statement "I do not go to a party unless I am invited" will **2 points**

be: $\sim I \supset \sim P$ [Where I: I am invited, P: go for the party].

- a) True
- b) False

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) True

4) Select the correct option from the given choices: "The final column in the truth-table **4 points**

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d) One F, and three Ts

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) All Fs

5) Which of the following is an actual statement in Propositional Logic?

2 points

a) $B \vee (Q \bullet C)$

b) $(q \vee p) \vee r$

c) $\sim (p \bullet r) \supset (q \supset p)$

d) $(s \bullet t) \vee q$

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) $B \vee (Q \bullet C)$

6) The truth table, if done correctly, for the following argument:

4 points

$(A \supset B) \bullet (P \supset Q)$

$B \supset Q / \therefore A \supset P$

a) Shows that the argument is invalid.

b) Shows that the argument is valid.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) Shows that the argument is invalid.

7) If done correctly, the truth table for the following set shows:

4 points

$[(T \equiv R), T, (\sim T \vee \sim R)]$

a) Is a consistent set.

b) Is an inconsistent set.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) Is an inconsistent set.

8) True or false?

1 point

"The difference between a statement variable and a statement constant is that the variable refers to an actual statement, but the constant refers to a statement form".

a) True

b) False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) False

9) If correctly done, the final column in the truth-table for $[(B \vee C) \bullet \sim (C \bullet D)] \supset B$ will **1 point** have:

- a) All Ts
- b) All Fs
- c) One F and all other Ts
- d) One T and all other Fs

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) One F and all other Ts

10) True or false?

1 point

"Through shorter truth table method, it is possible to demonstrate the validity of arguments."

- a) True
- b) False

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) False

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