Unit 4 - Week 3:

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?
A statement is a tautology iff its negation is a contradiction. 2 points

- 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 be: \( \sim I \supset \sim P \) [Where I: I am invited, P: go for the party]. 2 points

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

- a) $B \vee (Q \cdot C)$
- b) $(q \vee p) \vee r$
- c) $\sim (p \cdot r) \supset (q \supset p)$
- d) $(s \cdot t) \vee q$

No, the answer is incorrect.
Score: 0
Accepted Answers:
- a) $B \vee (Q \cdot C)$

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

\[(A \supset B) \bullet (P \supset Q)\]

B \supset Q / : 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:

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

- 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?

"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 \( (B \lor C) \cdot \sim (C \cdot D) \) will \( B \) 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?

"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