338.001, VL Logic, Martina Seidl / Wolfgang Schreiner / Wolfgang Windsteiger, 2022W

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Started on	Monday, 17 October 2022, 7:18 PM
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Time taken	8 mins 18 secs
Grade	**2.00** out of 5.00 (**40**%)

Question 1

Correct

Mark 2.00 out of 2.00

Flag question

Given formula (¬a ∨ b) ∧ (a ∨ ¬b) ∧ (a ∨ b). Which of the following assignments satisfy this formula?

1. {¬a, b}
2. {¬a, ¬b}
3. {¬a, b}
4. none
5. {a, b} ✔

Die Antwort ist richtig.

The correct answer is:
{a, b}

Question 2

Incorrect

Mark 0.00 out of 1.00

Flag question

Given the truth table of propositional formula φ over variable a, b, c:

a	b	c	φ
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	1

How many models does φ have?

Answer: 5 ✖

The correct answer is: 6

Question 3

Incorrect

Mark 0.00 out of 2.00

Flag question

Which of the following statements hold?

1. (¬b ∨ ¬c ∨ c) ∧ (¬b ∨ b ∨ c ∨ a) is satisfiable.
2. (¬a) ∧ (¬b) ∧ (¬c) ∧ (a ∨ b ∨ c) is satisfiable. ✖
3. (¬b ∨ c) is a literal.
4. (a ∨ ¬a) ∧ (b ∨ ¬b) ∧ (c) ∧ (¬c) is satisfiable.
5. (¬a ∨ b ∨ c) and (b ∨ c ∨ ¬a ∨ c) are equivalent (under any assignment, they have the same value).
6. (¬a ∧ ¬b ∧ c) is a clause.

Die Antwort ist falsch.

The correct answers are:
(¬b ∨ ¬c ∨ c) ∧ (¬b ∨ b ∨ c ∨ a) is satisfiable.,

(¬a ∨ b ∨ c) and (b ∨ c ∨ ¬a ∨ c) are equivalent (under any assignment, they have the same value).

Finish review