Propositional logics

- CNF, DNF, horn clauses

(b) (1 point) $(X \wedge Y) \vee (\neg X \vee \neg Y)$ is a disjunctive normal form (X, Y) are variables).

A. True

B. False

Answer: B

- Resolution.

First order logics

- ∀∃ v.s. ∃∀

(c) (1 point) $\forall x \exists y$ Likes(x, y) is equivalent to $\forall y \exists x$ Likes(y, x)

A. True

B. False

Answer: A

- Unification
- Skolemization
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(b) (1 point) The result of dropping quantifiers from $\forall x \exists y f(x, y)$ during the process of converting to Conjunctive Normal Form (CNF), gives (A is the Skolemization constant, F is the Skolemization function)

A. $f(x, F(x))$

B. $f(F(x), y)$

C. $f(x, F(y))$

D. $f(x, A)$

E. None of the others

Answer: A