IIT Jodhpur

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Quiz-7 (18-04-2020)

1 message

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Here's what we got from you:

Quiz-7 (18-04-2020)

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~(∀x.(P(x) -> ∃y.Q(x,y))) is equivalent to *

- [ ] ~(∀x.(~P(x) \/ ∀y.Q(x,y)))
- [x] ∃x.(P(x) /\ ∀y.~Q(x,y)))
- [ ] ∀x.(P(x) /\ ∀y.~Q(x,y))

- [ ] ∃x.(P(x) /\ ∃y.~Q(x,y)))

Which of the following is/are true? *

- [x] If P(c) holds for an arbitrary c, then ∀x.P(x) will hold.
- [x] If P(c) holds for some c, then ∃x.P(x) will hold.
- [x] If ∃x.P(x) holds, then P(c) will hold for some c.
- [x] If ∀x.P(x) holds, then P(c) will hold for any arbitrary c.

'α |= β' (to mean that α entails β) if and only if in every model in which α is _____, β is _____. *

- (•) true; true
- ( ) true; false
- ( ) false; true
- ( ) false; false

Given two arbitrary sentences A and B in Propositional Logic, A |= B (A entails B) if and only if *

- [x] A -> B is valid
- [ ] A /\ B is valid
- [ ] A /\ ~B is satisfiable
- [x] A /\ ~B is unsatisfiable
- [x] ~B -> ~A is valid

Consider a KB with two formulae: (1) P, (2) P \/ Q. Assume that the query is Q, then when the KB is _____, the query would/could be _____. *

- [x] true; true
- [x] true; false
- [ ] false; true
- [x] false; false