Week 5--Assignment

The due date for submitting this assignment has passed. **Due on 2016-08-28, 23:58 IST.**

Submitted assignment

1) Which one of the followings is true?
   - Propositional logic = Predicate logic
   - Propositional logic is subset of predicate logic
   - Predicate logic is subset of propositional logic
   - None of the above

   **No, the answer is incorrect.**
   **Score:** 0
   **Accepted Answers:**
   - Propositional logic is subset of predicate logic

2) Consider the system shown in the figure. In which state the temporal logic \((P \rightarrow XQ)\) is not satisfied?
   - \(S_0\)
   - \(S_1\)
   - \(S_2\)
   - None

   **No, the answer is incorrect.**
   **Score:** 0
   **Accepted Answers:**
   - None

3) Consider the system shown in the figure and the temporal logic \((P \land □Q)\). Which one of the followings is true? The symbol □ stands for globally past.
   - \((P \land □Q)\) is satisfied in state \(S_3\)
   - \((P \land □Q)\) is satisfied in state \(S_1\)
   - \((P \land □Q)\) is satisfied in state \(S_2\)

   **Score:** 0
   **Accepted Answers:**
   - None
Consider the system shown in the figure and the temporal logic \((P \rightarrow (Q \cup R))\). Which one of the followings is true?

- \((P \rightarrow (Q \cup R))\) is not satisfied in state \(S_0\)
- \((P \rightarrow (Q \cup R))\) is not satisfied in state \(S_4\)
- \((P \rightarrow (Q \cup R))\) is not satisfied in states \(S_1, S_2\) and \(S_3\)
- \((P \rightarrow (Q \cup R))\) is satisfied in all states

No, the answer is incorrect.
Score: 0
Accepted Answers:
\((P \rightarrow (Q \cup R))\) is satisfied in all states

Consider the system shown in the figure and the temporal logic \((P \lor (F \land Q))\). Which one of the followings is true?

- \((P \lor (F \land Q))\) is satisfied only in state \(S_0\)
- \((P \lor (F \land Q))\) is satisfied only in state \(S_1\)
- \((P \lor (F \land Q))\) is not satisfied only in state \(S_4\)
- \((P \lor (F \land Q))\) is satisfied in all states

No, the answer is incorrect.
Score: 0
Accepted Answers:
\((P \lor (F \land Q))\) is satisfied in all states

Consider the model shown in the figure. Choose the correct one. The symbol \(\bullet\) stands for previous past operator.

- \((P \lor (F \land Q))\) is not satisfied in state \(S_2\)
- \((P \lor (F \land Q))\) is not satisfied in state \(S_1\)
- \((P \lor (F \land Q))\) is satisfied in all states
- \((P \lor (F \land Q))\) is only satisfied in state \(S_0\)

No, the answer is incorrect.
Score: 0
Accepted Answers:
\((P \lor (F \land Q))\) is satisfied in all states
Consider the model shown in the figure. Choose the incorrect one.

- (P→Q) UR is satisfied in the state S₂
- (P→Q) UR is satisfied in the state S₁
- (P→Q) UR is satisfied in the state S₀
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
((P→Q) UR) is satisfied in the state S₀