TFCS

KANISHK BHAT - 20103233 - B2

Tut:-7

1. (A). Not a proposition, it's a Command.
(B). Not a proposition, it's a question.
(C). A proposition, it's false.
(D). Not a proposition, it's true.
(E). A proposition, it's false.
(F). Not a propostion, it's true value depends on n.

2. (A). I didn't buy a lottery ticket this week.
(B). Either I bought a lottery ticket this week or I won million dollar jackpot on friday.
(C). If I bought a lottery ticket this week then I won the million dollar jackpot on friday.
(D). I bought a lottery ticket this week & I won the million dollar jackpot on friday.
(E). I bought a lottery ticket this week if & only if I won the million dollar jackpot on friday.
(F). I didn't buy a lottery ticket this week, then I didn't win the million dollar jackpot on friday.
(G). I didn't buy a lottery ticket this week. & I didn't win the million.
(H). Either I didn't buy a lottery ticket this week, or else I didn't buy one & won the million dollar jackpot on friday.

3. (A). $r \wedge \neg q$

(B). $p \wedge q \wedge r$

(C). $r \rightarrow p$

(D). $p \wedge q \rightarrow \wedge r$

(E). $(p \wedge q) \rightarrow r$

(F). $r \leftrightarrow (q \vee p)$

4. (A). True

(B). True

(C). False

(D). True

5. (A). You will get an A in this course if & only if you learn how to solve discrete mathematics problems.

(B). You will be informed if and only if you read the newspaper everyday.

(C). It rains if & only if its a weekend day.

(D). You can see the wizard if & only if he is not in.

6. (A). Converse :- If I stay home, then it will snow tonight.

Contrapositive :- If I don't stay at home, then it will not snow tonight.

Inverse :- If it doesn't snow tonight, then I will not stay home.