Lec # 3:-

P	q	P→q
T	T	T
T	F	F
F	T	T
F	F	T

2^n = Variable

Possible Value.

Combinati = Possible Value = Variables ^ changing process.

3 3 x y z

P|q (1, 0, -1)

P	q
1	1
1	0
1	-1
-1	1
-1	0
-1	-1

make Combinations. 6 rows

Tommorow. Sheryar

Criminal Vs Suspect.

الجرم ملزم

1) Furqan. 4) Ahmad.

1) Furqan.
2) Changez.
3) Ali Shahgibani
4) Ahmad.
5) Abdullah.

How to Remember logical Implication:

p = I win election.
q = I will lower the taxes.
r

$p \rightarrow (q \rightarrow r)$ truth table.

p	q	r	$(q \rightarrow r)$	$p \rightarrow (q \rightarrow r)$
T	T	T	T	T
T	T	F	F	F
T	F	T	T	T
T	F	F	T	T
F	T	T	T	T
F	T	F	F	T
F	F	T	T	T

F	F	T		T
F	F	F		T

p then q. Page 6.

if p, q

q whenever p.

q if p.

"the home team wins whenever it is raining".

p q

Question:- Find out the logical expression for the statement Above.

Zohaib

Answer:- p = home team wins.
q = it is raining.

$p \rightarrow q$ ✗ $q \rightarrow p$.

$q \rightarrow p$ ✓

Biconditional $p \leftrightarrow q$.

p	q	$p \leftrightarrow q$.
T	T	T
T	F	F
F	T	F
F	F	T

p.

You can take the flight iff you buy the ticket.

q.

Hw. (Q 47-54.) System Consistency Question practice.

$(p \vee \neg p)$ Tautology $(p \vee q) \vee r)$ Contingency

$(p \wedge \neg p)$ Contradiction.

5 Examples of Contingency with truth table.