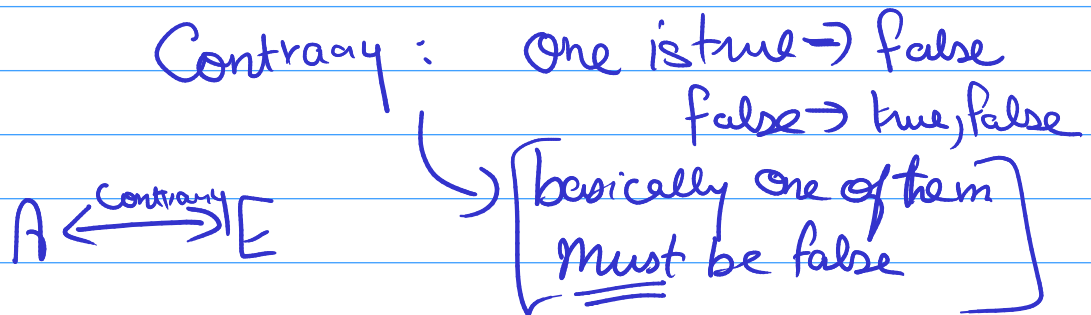
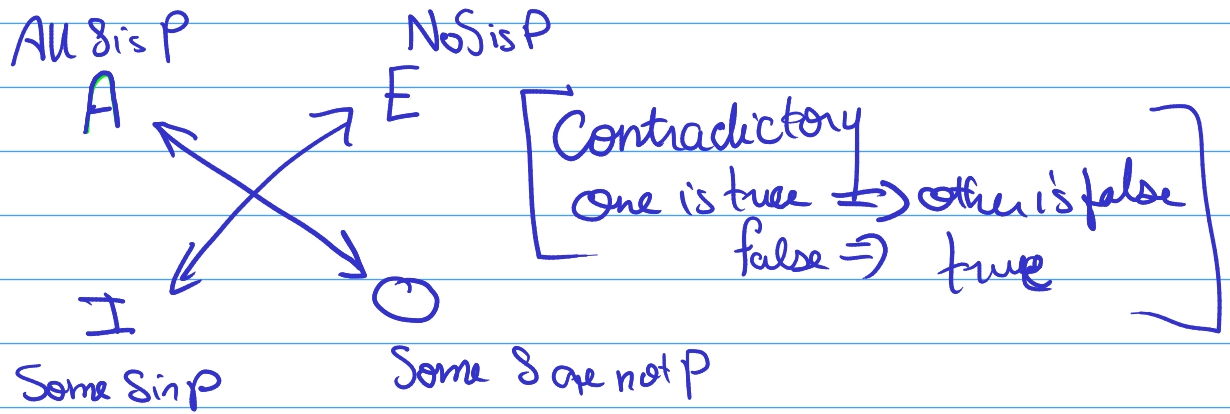
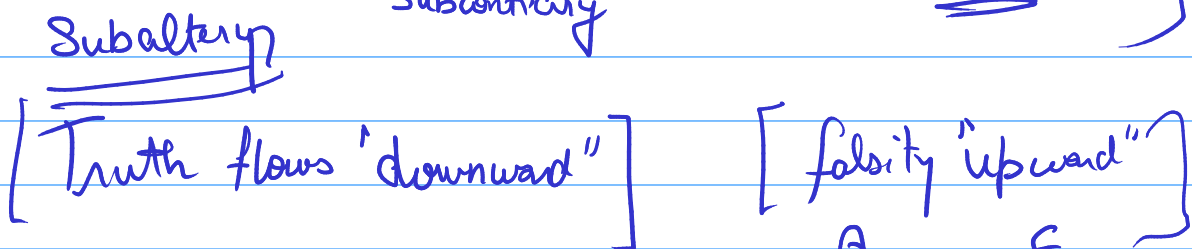
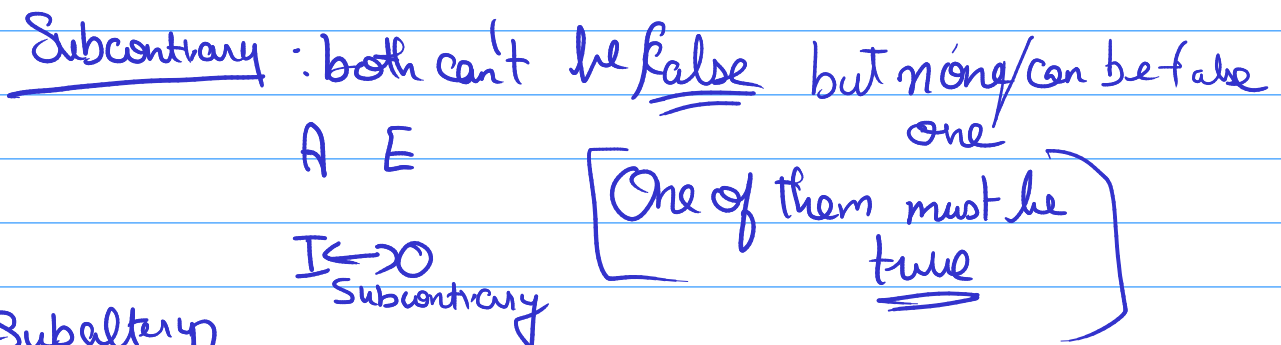


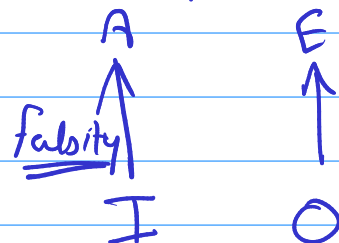
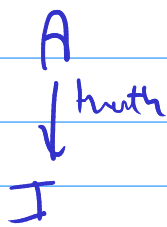
Square of opposition



$I \quad O$

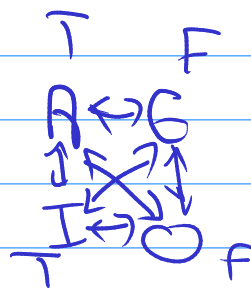
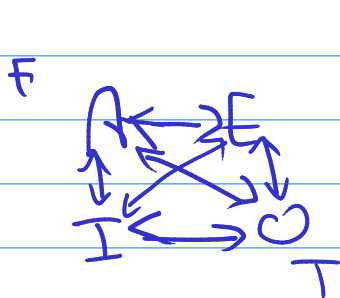
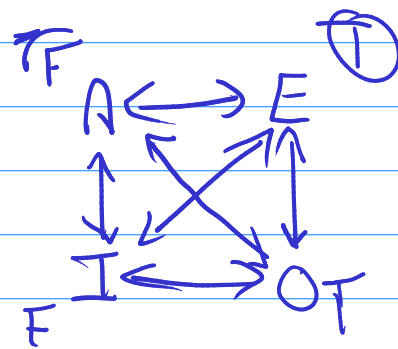
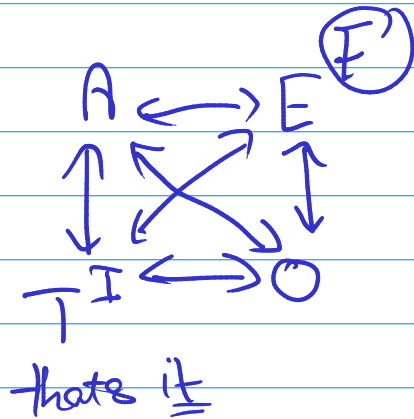
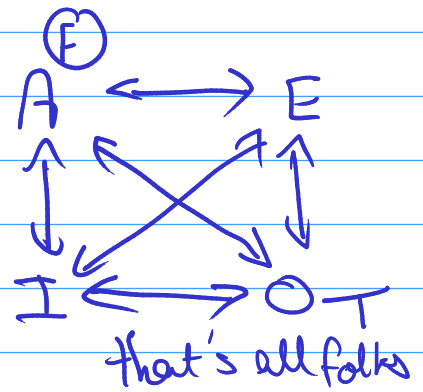
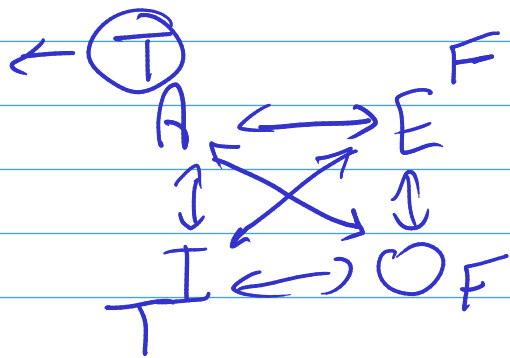


Subset alternative



$I =$
 So basically $!(\text{some } S=P)$ is none $S=P$
 $\Rightarrow A \text{ is false} = !A$
 $p \rightarrow q$ but not conversely but $!q \rightarrow !p$ (modus tollens)

if we know this,



Contrary

$P_1 = \text{India will win}$

$P_2 = \text{India will lose}$

both can't be
false or true
@ same time

Subaltern

what is true for whole is true for some
if A is true then I is also true
if F is true then O is also true
(truth flows downward and falsity flows upward) for
subaltern

P_1 All such people are evil

P_2 All squares have 4 sides

P_1 Can be T or F Evilness is not essential
 P_2 ~~Can~~ must be F 4 sides is essential
 → Dependent on world
 → Defined as so

→ Contingency (proposition can be true or false, dependent on real world)
→ Contradictory ~~pro~~ always false propositions (disjunctive composite)
→ Tautology ~~also~~ always true propositions (Rhea is guilty or not guilty)
→ Can't say X depends on $Y \Rightarrow X$ is contingent only
They are neither tautology nor fallacy

St Contradiction

A statement is a contradiction if it contains parts that are contradictory to each other

P = The ball is blue
 $\sim P$ = The ball is not blue

Q : The ball is blue and not blue \rightarrow contradiction

Contradiction vs. Contradictory.

A statement is a contradiction if it contains parts that are contradictory to each other.

Suppose only two coloured balls are inside a bag. I draw a ball and make the statement:

P = The ball is blue.

$\sim P$ = The ball is not blue.

Q = The ball is blue AND not blue.

$Q = P \text{ AND } \sim P$

Here, since P and $\sim P$ are contradictory to each other, the statement Q is a contradiction. Q will never be true.

4. Subalternation

Supaltern: A: All oranges are rotten A is true
Subaltern: I: Some oranges are rotten I cannot be false

I is true \Rightarrow A is true

But! I is false \Rightarrow A is false

A is supaltern
I is subaltern

E is true \Rightarrow O is true

O is false \Rightarrow E is false

Square of opposition is used in order to draw immediate inference on the basis of logical opposition.

Immediate inference = Inference that can be drawn provided one proposition.

Provided only one proposition, you can infer a new proposition.

Logical oppositions = Relationship between categorical propositions.