Lab Propositional logic

Implementation of truth-table enumeration algo Jon deciding propositional entailment
i.e cheate a knowledge base using propositional logic & show that the given query
untails the knowledge base on not.

Truth table for Connectives 1991

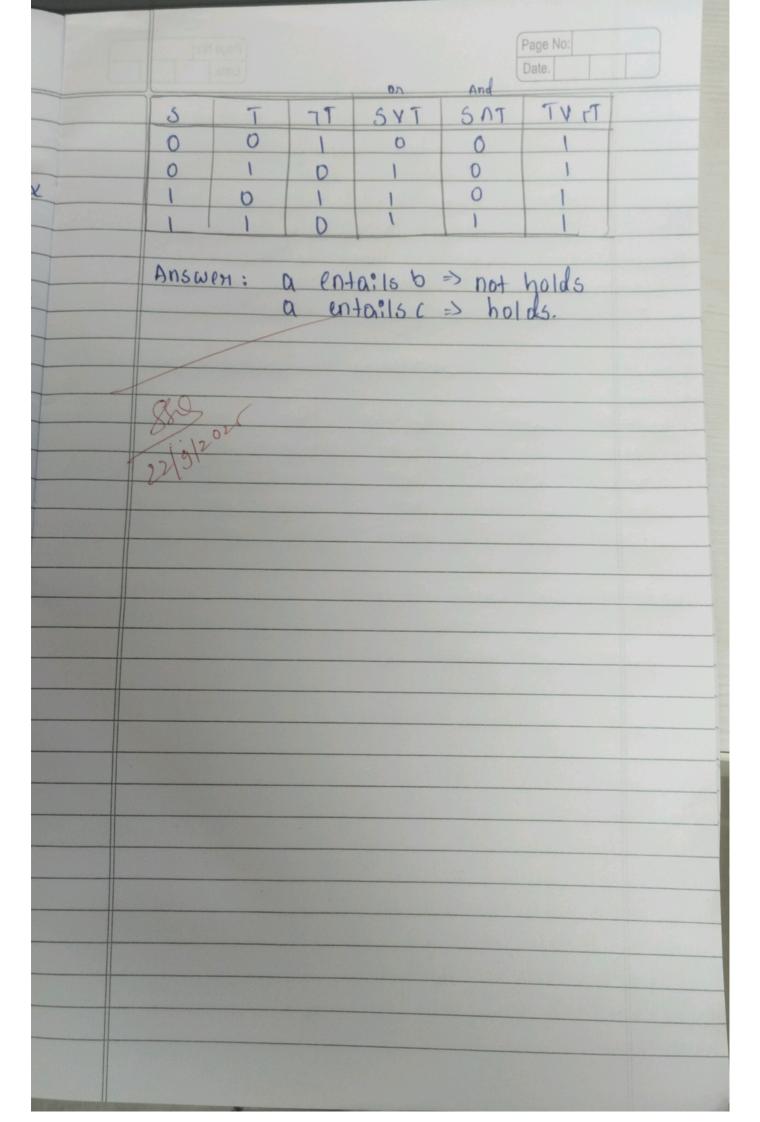
| | 10101 | 11 336 | 2 PARTON | And | J HO DAY | xon | |
|----------|---------|--------|----------|-----------|----------|--------|---|
| | P | a | 70 | PAR | PYR | PL=> 0 | |
| 100 | Ja1se | Jalse! | true ! | false | dalse | thue | + |
| Cornella | Jalse | FAUE | Hue | Jalse | THUE | dalse | 1 |
| - | Thue | Jalse | Jalse + | dalse ! | THUE | Jake | 1 |
| | True | thue | Jalse | True ? 2: | Thue of | thue | 1 |
| | Acres L | 10 11- | 3 4 1 12 | | | | |

Propositional inference : Enumération method Example: Knowledge base

POLX = ANBODOKB =

checking that KBIF = & Bullion

| | A | B | C (74 | AVC | BYIC | kB | Q | | | | |
|---|------------------------------|----------|---------|--------|-------|---------|-------|--|--|--|--|
| | jalse | false | Jalse | Malse | trive | 1alse | dalse | | | | |
| | false | false | true | THUE | Jalse | Jalse | Jalse | | | | |
| | 1015c | 1 THUR ! | lalse | galse: | +nue | alse | Inve | | | | |
| - | false | Thue | + HUE | Fave 0 | tave | Forve | thrue | | | | |
| | THUP | alse | Jalse 1 | of nue | trive | Inve | true | | | | |
| I | THUE | Jalse | true | true | Jalse | false) | + nue | | | | |
| - | Thue | Frue | false | true | Frue | THUE | Inve. | | | | |
| 1 | THUE | true | faue | Frue | true | | Anve | | | | |
| | KB 1= & holds (KB entails &) | | | | | | | | | | |



```
Enter alpha (example: A | B): ( A | B)
Enter KB (example: (A | C) & (B | ~C)): (A | C) & (B | ~C)
Truth Table for \alpha = (A \mid B), KB = (A \mid C) & (B \mid \neg C)
             C
False False False
                               False
False False True False
                               False
False True False True
                               False
False True TrueTrue
True False False TrueTrue
True False True True
                               False
True True False TrueTrue
True True TrueTrue
 KB \mid = \alpha holds (KB entails \alpha)
```

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