

lecture 1:-

Discrete + "تینے میں آئے"

Structures ^۱

→ Two Sessionals
20% + 20%.

→ Final 50%.

Data \rightarrow Unstructured.

→ form structures → Representation.

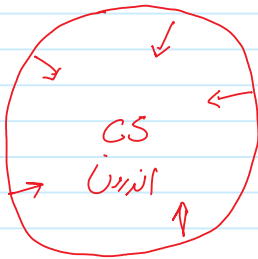
→ Quiz 10%

Structures :-

- 1- Sets
- 2- Matrices.
- 3- Graphs
- 4- Trees.

Theory

practical \rightarrow Data structures.



بیرون

problems \rightarrow Communicate-to Computers.
 \rightarrow Propositional logic.

Propositional logic:-

Divide & Conquer.

Proposition:- A declarative statement which is either true or false but not both.

Ex:- Islamabad is the Capital of Pakistan.
 $1+1=2$.
 $1+5=6$.

Ex 2 / p2:- $x+1 = 2$. Not a proposition.
 $x+y = z$ " " " " " "

Propositional Variables: p

Today is Friday.

Let p_2 today is Friday

$p_2 \neq$

Operations:-

Negation.

Syntax: (\rightarrow)

P	$\neg P$
\neg	P

Operations:- Negation. ^{Syntax} (\neg)
Not.

P	$\neg P$
T	F
F	T

Semantics.

Ex/P3:- Today is Friday.

Let P = Today is Friday.

$\neg P$ = Today is not Friday.

1 + 2 = 5 (find Negation).
 Let P = 1 + 2 = 5 $\neg (P) = \leq$
 $\neg P$ = 1 + 2 \neq 5. $\neg (\neg P) = <$
 $\neg (L) = \geq$
 $\neg (S) = >$

HW. Page 1-3.