

Engineering Mathematics III

Discrete Mathematics

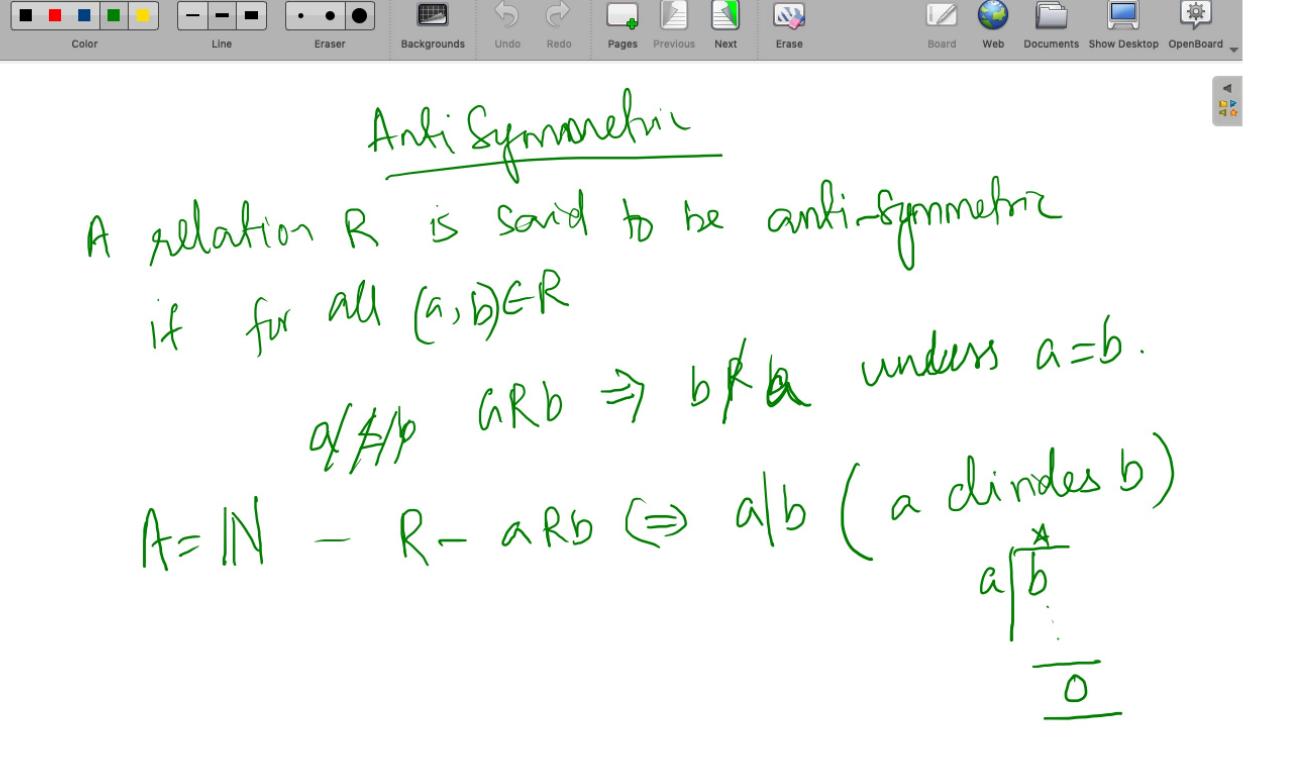
Lecture 5

Partial Order relations, Covering, Partial Order set & Problems

This course is taught to Computer Science Engineering students in SMIT, India during Jun-Dec, 2019.







Partial ordering Relation: R- is said to be partial ordaring relation, My (i) Reflexive (ii) R is anti-symmetry (III) Ris tansitire

Examine R for partial ordering relation. (i) Reflexive: Int a EIN To prove ara is ala WICT a/a herause a=1.a+oTP: bRain, b does =) R-is reflective with

((ii) Anti-Symmetry ic and assume that arb. arb =) a i smaller => b does not donde => p in an anti-symetime

1117 / Sansitive. assume that are and byc

R-20 TP: ARC VI, AC = Q. a + b ordering relation nki, a|b = b = 910 + 0 = 920 + 0 = 9200 o|c = 920 + 0 = 9200 = 9200= (9,92)

The A be any Set. then counted the Such that ARB if ASB (ii) Anti Symmetric ant A, BE (R(A) and A SB, A+B Frit GEA, =) ach ACBOLA #B => J z G B Sudr Prot is antisymmetric

(c) transitive. THE A, B, C EPCA), A SB, B SC ACB = HACB, ACB } (It ACA)

BCC = HACB, ACC =) R is a partial ordering relation.

A2 = A3 = A4 = C B2 C B3 5---/main