## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Mathematics - NOC: Discrete Mathematics
Subject Co-ordinator - Prof. Sourav Chakraborty
Co-ordinating Institute - IIT - Madras
Sub-Titles - Available / Unavailable
                                         MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Course Introduction
Lecture 2 - Sets, Relations and Functions
Lecture 3 - Propositional Logic and Predicate Logic
Lecture 4 - Propositional Logic and Predicate Logic (Part 2)
Lecture 5 - Elementary Number Theory
Lecture 6 - Formal Proofs
Lecture 7 - Direct Proofs
Lecture 8 - Case Study
Lecture 9 - Case Study (Part 2)
Lecture 10 - Sets, Relations, Function and Logic
Lecture 11 - Proof by Contradiction (Part 1)
Lecture 12 - Proof by Contradiction (Part 2)
Lecture 13 - Proof by Contraposition
Lecture 14 - Proof by Counter Example
Lecture 15 - Mathematical Induction (Part 1)
Lecture 16 - Mathematical Induction (Part 2)
Lecture 17 - Mathematical Induction (Part 3)
Lecture 18 - Mathematical Induction (Part 4)
Lecture 19 - Mathematical Induction (Part 5)
Lecture 20 - Mathematical Induction (Part 6)
Lecture 21 - Mathematical Induction (Part 7)
Lecture 22 - Mathematical Induction (Part 8)
Lecture 23 - Introduction to Graph Theory
Lecture 24 - Handshake Problem
Lecture 25 - Tournament Problem
Lecture 26 - Tournament Problem (Part 2)
Lecture 27 - Ramsey Problem
Lecture 28 - Ramsey Problem (Part 2)
Lecture 29 - Properties of Graphs
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Lecture 30 - Problem 1
Lecture 31 - Problem 2
Lecture 32 - Problem 3 & 4
Lecture 33 - Counting for Selection
Lecture 34 - Counting for Distribution
Lecture 35 - Counting for Distribution (Part 2)
Lecture 36 - Some Counting Problems
Lecture 37 - Counting using Recurrence Relations
Lecture 38 - Counting using Recurrence Relations (Part 2)
Lecture 39 - Solving Recurrence Relations (Part 1)
Lecture 40 - Solving Recurrence Relations (Part 2)
Lecture 41 - Asymptotic Relations (Part 1)
Lecture 42 - Asymptotic Relations (Part 2)
Lecture 43 - Asymptotic Relations (Part 3)
Lecture 44 - Asymptotic Relations (Part 4)
Lecture 45 - Generating Functions (Part 1)
Lecture 46 - Generating Functions (Part 2)
Lecture 47 - Generating Functions (Part 3)
Lecture 48 - Generating Functions (Part 4)
Lecture 49 - Proof Techniques
Lecture 50 - Modeling
Lecture 51 - Combinatorics
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