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

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NPTEL Video Course - Mechanical Engineering - NOC: Financial Mathematics
Subject Co-ordinator - Dr. Pradeep K. Jha
Co-ordinating Institute - IIT - Roorkee
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Financial Mathematics
Lecture 2 - Important Mathematical Functions and its Characteristics
Lecture 3 - Progressions and Series, Growth and Decay Curves
Lecture 4 - Statistical Measures
Lecture 5 - Problem Solving on Mathematical Functions and Statistical Measures
Lecture 6 - Interest and Interest Rate, Time Value of Money
Lecture 7 - Simple Discount, Focal Date and Equation of Value
Lecture 8 - Introduction to Bank Discount
Lecture 9 - Introduction to Compound Interest
Lecture 10 - Problem Solving on Simple Interest and Bank Discount
Lecture 11 - Introduction to Discrete Compounding and Discrete Payments
Lecture 12 - Equal Payment Series and Gradient Series Factors
Lecture 13 - Geometric Gradient Series Factors
Lecture 14 - Annuities Due and Annuities Deferred
Lecture 15 - Problem Solving on Compounding Factors
Lecture 16 - Compounding Frequency of Interest
Lecture 17 - Interest Factors for Continuous Compounding
Lecture 18 - Introduction to Economic Equivalence
Lecture 19 - Principles of Equivalence
Lecture 20 - Problem Solving on Compounding Frequency and Economic Equivalence
Lecture 21 - Methods of Comparison of Alternatives
Lecture 22 - Payback Period
Lecture 23 - Capitalized Equivalent and Capital Recovery with Return
Lecture 24 - Project Balance
Lecture 25 - Problem Solving on Alternatives Comparison and Project Balance
Lecture 26 - Analysis of Credit and Loans
Lecture 27 - Assessing Interest and Structured Payments in Loans
Lecture 28 - Introduction to Cost of Credit and Amortization
Lecture 29 - Analysis of Amortization Schedule
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Lecture 30 - Graduated Payment Mortgage, Sinking Funds Lecture 31 - Introduction to Depreciation and Depletion Lecture 32 - Types of Depreciation Lecture 33 - Tax Depreciation Methods Lecture 34 - SOD and UOP Method of Depreciation, Depletion Lecture 35 - Problem Solving on Depreciation and Depletion Lecture 36 - Introduction to Break-Even Analysis Lecture 37 - Analysis of Break-Even Time and Dual Break-Even Points Lecture 38 - Economic Order Ouantity Lecture 39 - Introduction to Leverage Lecture 40 - Financial Leverage and Total Leverage Lecture 41 - Introduction to Stocks Lecture 42 - Stock Valuation Lecture 43 - Two Stage Dividend Growth and Preferred Stocks Lecture 44 - Introduction to Bonds Lecture 45 - Bond Premium and Discount, Bond Purchase Lecture 46 - Introduction to Mutual funds Lecture 47 - Performance Measures Lecture 48 - Options Lecture 49 - Option Valuation Lecture 50 - Introduction to Cost of Capital and Ratio Analysis Lecture 51 - Introduction to Risk Measurement Lecture 52 - Decision-Making Under Risk Lecture 53 - Decision Under Uncertainty Lecture 54 - Risk Premium, Portfolio Return and Risk Lecture 55 - Portfolio Diversification Lecture 56 - Introduction to Insurance, Mortality Table Lecture 57 - Pure Endowment and Life Annuities Lecture 58 - Introduction to Life Insurance Lecture 59 - Types of Life Insurance Policies Lecture 60 - Reserve Funds, Property and Casualty Insurance