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Nota di contenuto	Cover -- Half-Title -- Title -- Copyright -- Contents -- Preface -- Chapter 1: Numerical Computations -- 1.1 Taylor's Theorem -- 1.2 Number Representation -- 1.3 Error Considerations -- 1.3.1 Absolute and Relative Errors -- 1.3.2 Inherent Errors -- 1.3.3 Round-off Errors -- 1.3.4 Truncation Errors -- 1.3.5 Machine Epsilon -- 1.3.6 Error Propagation -- 1.4 Error Estimation -- 1.5 General Error Formula -- 1.5.1 Function Approximation -- 1.5.2 Stability and Condition -- 1.5.3 Uncertainty in Data or Noise -- 1.6 Sequences -- 1.6.1 Linear Convergence -- 1.6.2 Quadratic Convergence -- 1.6.3 Aitken's Acceleration Formula -- 1.7 Summary -- Exercises -- Chapter 2: Linear System of Equations -- 2.1 Introduction -- 2.2 Methods of Solution -- 2.3 The Inverse of a Matrix -- 2.4 Matrix Inversion Method -- 2.4.1 Augmented Matrix -- 2.5 Gauss Elimination Method -- 2.6 Gauss-Jordan Method -- 2.7 Cholesky's Triangularization Method -- 2.8 Crout's Method -- 2.9 Thomas Algorithm for Tridiagonal System -- 2.10 Jacobi's Iteration Method -- 2.11 Gauss-Seidel Iteration Method -- 2.12 Summary -- Exercises -- Chapter 3: Solution of Algebraic and Transcendental Equations -- 3.1 Introduction -- 3.2 Bisection Method -- 3.2.1 Error Bounds -- 3.3 Method of False Position -- 3.4 Newton-Raphson Method -- 3.4.1 Convergence of the Newton-Raphson Method -- 3.4.2 Rate of Convergence of the Newton-Raphson Method -- 3.4.3 Modified Newton-Raphson Method -- 3.4.4 Rate of Convergence of the

Modified Newton-Raphson Method -- 3.5 Successive Approximation Method -- 3.5.1 Error Estimate in the Successive Approximation Method -- 3.6 Secant Method -- 3.6.1 Convergence of the Secant Method -- 3.7 Muller's Method -- 3.8 Chebyshev Method -- 3.9 Aitken's 2 Method -- 3.10 Comparison of Iterative Methods -- 3.11 Summary -- Exercises -- Chapter 4: Numerical Differentiation -- 4.1 Introduction.

4.2 Derivatives Based on Newton's Forward Integration Formula -- 4.3 Derivatives Based on Newton's Backward Interpolation Formula -- 4.4 Derivatives Based on Stirling's Interpolation Formula -- 4.5 Maxima and Minima of a Tabulated Function -- 4.6 Cubic Spline Method -- 4.7 Summary -- Exercises -- Chapter 5: Finite Differences and Interpolation -- 5.1 Introduction -- 5.2 Finite Difference Operators -- 5.2.1 Forward Differences -- 5.2.2 Backward Differences -- 5.2.3 Central Differences -- 5.2.4 Error Propagation in a Difference Table -- 5.2.5 Properties of the Operator -- 5.2.6 Difference Operators -- 5.2.7 Relation Between the Operators -- 5.2.8 Representation of a Polynomial Using Factorial Notation -- 5.3 Interpolation with Equal Intervals -- 5.3.1 Missing Values -- 5.3.2 Newton's Binomial Expansion Formula -- 5.3.3 Newton's Forward Interpolation Formula -- 5.3.4 Newton's Backward Interpolation Formula -- 5.3.5 Error in the Interpolation Formula -- 5.4 Interpolation with Unequal Intervals -- 5.4.1 Lagrange's Formula for Unequal Intervals -- 5.4.2 Hermite's Interpolation Formula -- 5.4.3 Inverse Interpolation -- 5.4.4 Lagrange's Formula for Inverse Interpolation -- 5.5 Central Difference Interpolation Formulae -- 5.5.1 Gauss's Forward Interpolation Formula -- 5.5.2 Gauss Backward Interpolation Formula -- 5.5.3 Bessel's Formula -- 5.5.4 Stirling's Formula -- 5.5.5 Laplace-Everett Formula -- 5.5.6 Selection of an Interpolation Formula -- 5.6 Divided Differences -- 5.6.1 Newton's Divided Difference Interpolation Formula -- 5.7 Cubic Spline Interpolation -- 5.8 Summary -- Chapter 6: Curve Fitting, Regression, and Correlation -- 6.1 Introduction -- 6.1.1 Approximating Curves -- 6.2 Linear Equation -- 6.3 Curve Fitting With a Linear Equation -- 6.4 Criteria for a "Best" Fit -- 6.5 Linear Least-Squares Regression -- 6.6 Linear Regression Analysis.

6.6.1 MATLAB Functions: polyfit and polyval -- 6.7 Interpretation of a and b -- 6.8 Standard Deviation of Random Errors -- 6.9 Coefficient of Determination -- 6.10 Linear Correlation -- 6.11 Linearization of Nonlinear Relationships -- 6.12 Polynomial Regression -- 6.13 Quantification of Error of Linear Regression -- 6.14 Multiple Linear Regression -- 6.15 Weighted Least-Squares Method -- 6.16 Orthogonal Polynomials and Least-Squares Approximation -- 6.17 Least-Squares Method for Continuous Data -- 6.18 Approximation Using Orthogonal Polynomials -- 6.19 Gram-Schmidt Orthogonalization Process -- 6.20 Fitting a Function Having a Specified Power -- 6.21 Summary -- Exercises -- Chapter 7: Numerical Integration -- 7.1 Introduction -- 7.1.1 Relative Error -- 7.2 Newton-Cotes Closed Quadrature Formula -- 7.3 Trapezoidal Rule -- 7.3.1 Error Estimate in Trapezoidal Rule -- 7.4 Simpson's 1/3 Rule -- 7.4.1 Error Estimate in Simpson's 1/3 Rule -- 7.5 Simpson's 3/8 Rule -- 7.6 Boole's and Weddle's Rules -- 7.6.1 Boole's Rule -- 7.6.2 Weddle's Rule -- 7.7 Romberg's Integration -- 7.7.1 Richardson's Extrapolation -- 7.7.2 Romberg Integration Formula -- 7.8 Summary -- Exercises -- Chapter 8: Numerical Solution of Ordinary Differential Equations -- 8.1 Introduction -- 8.2 One-Step Methods or Single-Step Methods -- 8.2.1 Picard's Method of Successive Approximation -- 8.2.2 Taylor's Series Method -- 8.3 Step-by-Step Methods or Marching Methods -- 8.3.1 Euler's Method -- 8.3.2 Modified Euler's Method -- 8.3.3 Runge-Kutta

Methods -- 8.3.4 Predictor-Corrector Methods -- 8.4 Summary --
Exercises -- Bibliography -- Appendix A: Partial Fraction Expansions --
Case-I: Partial Fraction Expansion when $Q(s)$ has Distinct Roots --
Case-II: Partial Fraction Expansion when $Q(s)$ has Complex Conjugate
Roots -- Appendix B: Basic Engineering Mathematics -- B.1 Algebra --
B.1.1 Basic Laws.
B.1.2 Sums of Numbers -- B.1.3 Progressions -- B.1.4 Powers and
Roots -- B.1.5 Binomial Theorem -- B.1.6 Absolute Values -- B.1.7
Logarithms -- B.2 Trigonometry -- B.2.1 Trigonometric Identities -- B.
3 Differential Calculus -- B.3.1 List of Derivatives -- B.3.2 Expansion in
Series -- B.4 Integral Calculus -- B.4.1 List of the Most Common
Integrals -- Appendix C: Cramer's Rule -- Exercises -- Answers to
Selected Exercises -- Index.

Sommario/riassunto

The book is designed to cover all major aspects of applied numerical methods, including numerical computations, solution of algebraic and transcendental equations, finite differences and interpolation, curve fitting, correlation and regression, numerical differentiation and integration, matrices and linear system of equations, numerical solution of ordinary differential equations, and numerical solution of partial differentialequations. It uses a numerical problem-solving orientation with numerous examples, figures, and end of chapter exercises. Presentations are limited to very basic topics to serve as an introduction to more advanced topics. FEATURES:Emphasizes applications, analytical developments, algorithms, and computational solutions over puretheoryFeatures over 300 problems with step-by-step solutionsIncludes a review of basic engineering mathematics and partial fraction expansionsProvides an understanding, both physical and mathematical, of the basic theory ofnumerical analysis, methods, and their applications
