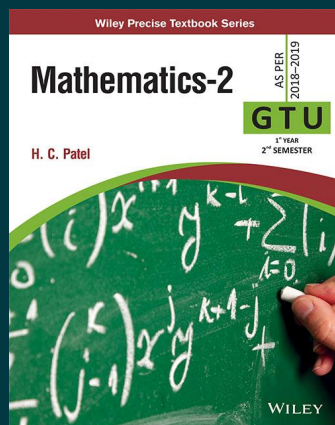




Mathematics-2: As per 2018-2019 GTU 1st Year 2nd Semester

By H.C. Patel

Paperback

9788126579105

₹620.00

Pages: 636

Description

Mathematics-2 has been exclusively designed by completely covering 2018-2019 GTU syllabus, aiming to cater to the needs of the 1st-Year (2nd-Semester) Engineering graduates. This book provides quick conceptual understanding and application capability by its in-depth coverage of the topics. It is a must have book for the students as it contains unique explanation and crystal-clear expression in a step-by-step approach. The pedagogy of this book has been designed in sync with the learning objectives of core mathematics courses. Keeping in mind the learning curve for the students, all the chapters have been organized accordingly.

About the Author

H.C. Patel

H. C. Patel is a Professor of Mathematics, General Department, L. D. College of Engineering, Ahmedabad, Gujarat, India. His areas of specialization are Engineering Mathematics and Tribology (Fluid Dynamics). He has 18+ years of quality teaching experience and holds prestigious memberships in various renowned professional bodies. In addition to have attended numerous international conferences, Prof. (Dr.) Patel has many articles, research papers and works to his credit in various national and international journals, conferences, seminars

Table of Contents

Foreword

Expressions of Appreciations

Preface

Acknowledgements

Syllabus

Nomenclature

1 Vector Calculus

1.1 Introduction

1.2 Parametrization of Curves

1.3 Exercises

1.4 Vector and Scalar Fields

1.5 Exercises

1.6 Arc Length of Curve in Space

1.7 Exercises

1.8 Gradient of a Scalar Function

1.9 Exercises

1.10 Divergence and Curl

1.11 Exercises

1.12 Line Integral

1.13 Path Independence and Conservative Field

1.14 Exercises

1.15 Green's Theorem in the Plane

1.16 Exercises

2 Laplace Transform

2.1 Introduction

2.2 Basic Concepts

2.3 LT of Elementary Functions

2.4 First Shifting Theorem

2.5 Exercises

2.6 Unit Step Function and Second Shifting Theorem

2.7 Exercises

2.8 LT of Derivatives

2.9 LT of Integrals

2.10 Differentiation of LT

2.11 Integration of LT

2.12 LT Using Mixed Formulas

2.13 Exercises

2.14 Dirac's Delta Function

2.15 LT of Periodic Functions

2.16 Convolution

2.17 Exercises

2.18 ODEs by LT

2.19 System of ODEs

2.20 Exercises

3 Fourier Integral

3.1 Introduction

3.2 Fourier Integrals

3.3 Exercises

4 First-Order ODEs

4.1 Introduction

4.2 Basic Concepts of ODE

4.3 Exact Differential Equation

4.4 Exercises
4.5 Integrating Factors
4.6 Exercises
4.7 Linear Equation
4.8 Bernoulli's Equation
4.9 Exercises
4.10 First-Order Equations with Higher Degree
4.11 Exercises
5 ODEs of Higher Order
5.1 Introduction
5.2 Basic Concepts of ODE
5.3 Reduction of Order for Solution of DE
5.4 Homogeneous Linear DE with Constant Coefficient
5.5 Exercises
5.6 Non-Homogeneous Linear DE with Constant Coefficient
5.7 Exercises
5.8 Euler-Cauchy Equations
5.9 Method of Variation of Parameters
5.10 Exercises
6 Series Solution and Special Functions
6.1 Introduction
6.2 Classification of Points
6.3 Series Solution
6.4 Power Series Solution
6.5 Frobenius Series Solution
6.6 Some Special Functions and Their Properties
6.7 Exercises
Index

To purchase this product, please visit:

<https://www.wileyindia.com/mathematics-2-as-per-2018-2019-gtu-1st-year-2nd-semester.html>



Scan to buy