

Second Edition

Eastern
Economy
Edition

THEORY
AND
PROBLEMS
OF
BASIC
ELECTRICAL
ENGINEERING



D.P. Kothari • I.J. Nagrath

Theory and Problems of Basic Electrical Engineering

Second Edition

D.P. KOTHARI

Director-Research

Gaikwad-Patil Group of Institutions, Nagpur

Former Director-in-Charge

Indian Institute of Technology Delhi

Former Principal

VNIT Nagpur

Former Vice Chancellor

VIT University, Vellore

I.J. NAGRATH

Former Professor of Electrical Engineering and Deputy Director

Birla Institute of Technology and Science

Pilani (Rajasthan)

PHI Learning Private Limited

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THEORY AND PROBLEMS OF BASIC ELECTRICAL ENGINEERING, Second Edition

D.P. Kothari and I.J. Nagrath

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Preface

The excellent response to the first edition of this book by students and faculties of Indian and foreign universities, and the practising engineers has motivated us to venture for the second edition. The aim is to include the missing links, and update and upgrade the material of the first edition as per the current needs of the course curriculum.

The Second Edition of the book, like the previous edition gives an exhaustive exposition of the fundamental concepts, techniques and devices of electrical engineering. The basic concepts of Electric Circuit Theory, Electric Machines and Measurement Techniques, and Instrumentation have remained more or less the same over the years since the First Edition of this text appeared in 1998.

The present edition covers the syllabus of Basic Electrical Engineering course offered at almost all the Indian Technical Universities and some foreign universities as well. It is particularly well-suited for undergraduate students of all engineering disciplines. Also, Diploma/AMIE/IETE graduate students of EEE and ECE will find this book useful for circuit theory and electric machine courses. The book can also be used for a single course in electric machines. The highlights of this edition are addition of objectives and several new review questions and solved problems in all the chapters. This thoroughly revised and updated text contains 15 chapters which have been structured to provide in-depth information of all the concepts with appropriate pedagogy.

While revising the text, we have had the benefit of valuable advice and suggestions from many teachers, students and other readers who used the first edition of this book. The feedback received from all those individuals has inspired us to bring out the second edition. We express our thanks and appreciation to them. We hope this support/response would continue in future as well.

I (D.P. Kothari) have solely missed my friend, guide and philosopher, Late Prof. I.J. Nagrath (died on September 10, 2014 in Hyderabad). He has been instrumental and inspiring behind all the ten books we have written together.

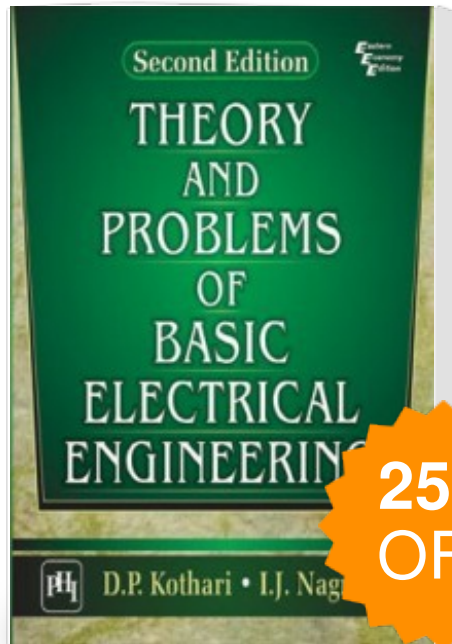
I am extremely thankful to my friend, Mr. Darshan Kumar (ex-editor in PHI Learning), who has gone through the first edition and corrected it, wherever possible.

We also thank PHI team and our family members for their support during this period and for giving all possible help so that this book can see the light of the day.

I am thankful to the authorities of GPGI, Nagpur for providing all the facilities necessary for revising this book.

D.P. KOTHARI
I.J. NAGRATH

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