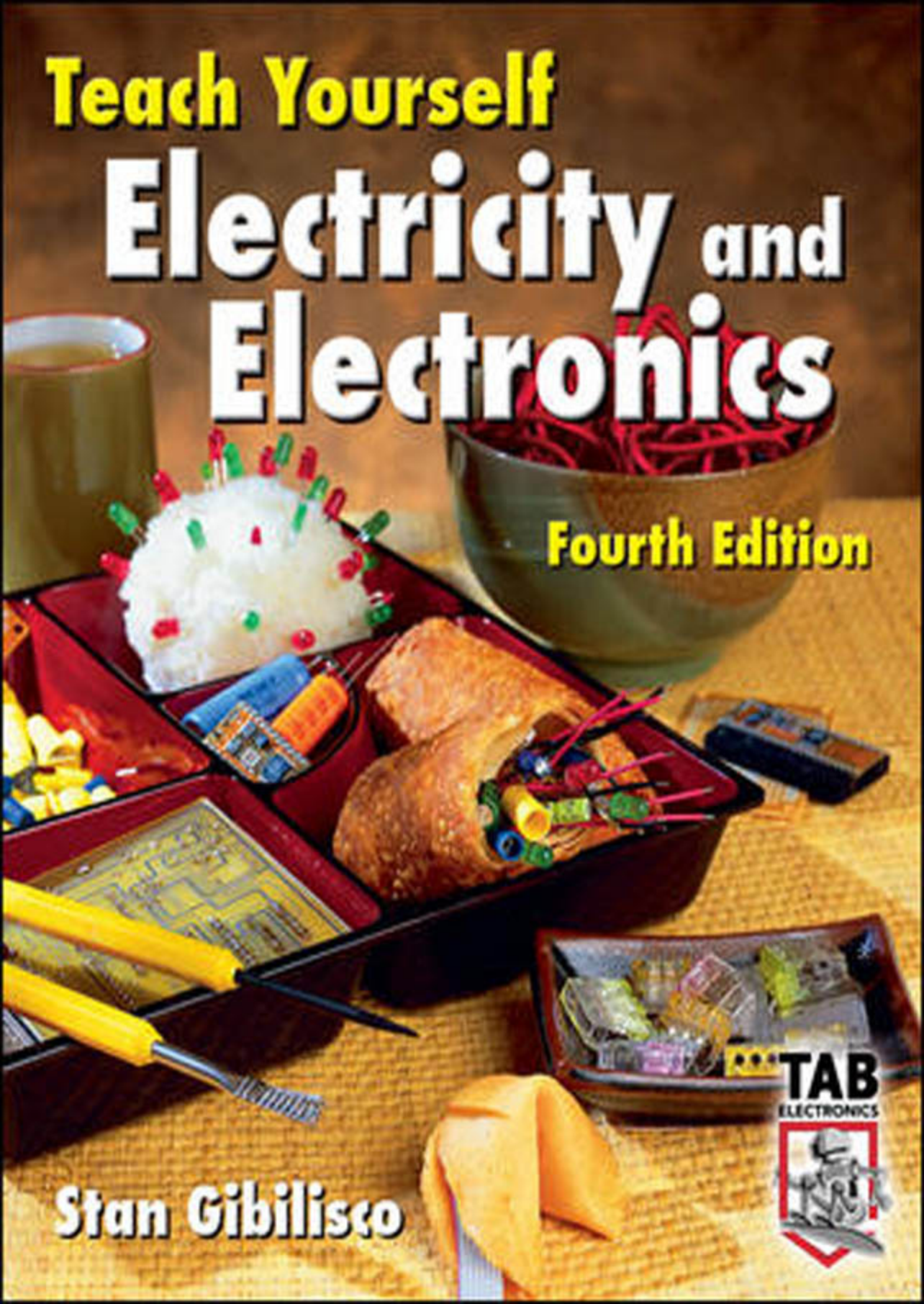
Teach Yourself Electricity and Electronics

Fourth Edition



Stan Gibilisco

TAB ELECTRONICS

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To Tony, Samuel, Tim, Roland, Jack, and Sherri

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Preface

This book is for people who want to learn the fundamentals of electricity, electronics, and related fields without taking a formal course. The book can also serve as a classroom text. This edition contains new material on transducers, sensors, antennas, monitoring, security, and navigation. Material from previous editions has been updated where appropriate.

As you take this course, you'll encounter hundreds of quiz, test, and exam questions that can help you measure your progress. They are written like the questions found in standardized tests used by educational institutions.

There is a short multiple-choice quiz at the end of every chapter. The quizzes are "open-book." You may refer to the chapter texts when taking them. When you have finished a chapter, take the quiz, write down your answers, and then give your list of answers to a friend. Have the friend tell you your score, but not which questions you got wrong. Because you're allowed to look at the text when taking the quizzes, some of the questions are rather difficult.

At the end of each section, there is a multiple-choice test. These tests are easier than chapter-ending quizzes. Don't look back at the text when taking the tests. A satisfactory score is at least three-quarters of the answers correct.

You will find a final exam at the end of this course. As with the section-ending tests, the questions are not as difficult as those in the chapter-ending quizzes. Don't refer back to the text while taking the final exam. A satisfactory score is at least three-quarters of the answers correct.

The answers to all of the multiple-choice quiz, test, and exam questions are listed in an appendix at the back of this book.

You don't need a mathematical or scientific background for this course. Middle-school algebra, geometry, and physics will suffice. There's no calculus here! I recommend that you complete one chapter a week. That way, in a few months, you'll finish the course. You can then use this book, with its comprehensive index, as a permanent reference.

Suggestions for future editions are welcome.

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