

PROBLEMS IN ELECTRICAL ENGINEERING

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Problems in electrical engineering by Waldo V. Lyon

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WALDO V. LYON

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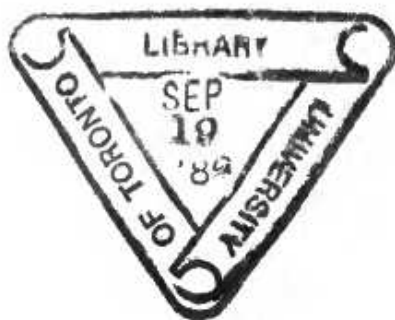
BY

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PREFACE

This collection of problems has been prepared for the use of students at the Massachusetts Institute of Technology, but as the book may be used in other technical schools it seems best to state what ground the problems are intended to cover. At the Institute the book will be used by the third year students in Electrical Engineering, and by the third and fourth year students in the courses of Civil, Mechanical, Mining and Chemical Engineering. The work in these courses includes the theoretical elements of direct and single-phase alternating currents and the theory and operation of direct-current generators and motors. The problems are for the most part what would be called theoretical, although whenever it is possible they apply to some practical engineering question. In many cases certain constants have been exaggerated in order to emphasize some particular point.

At the beginning of each chapter there is a brief statement of the fundamental principles which the problems illustrate. The problems in each chapter and in each section of Chapters XII and XIII have been arranged approximately in their order of difficulty. Many problems which would otherwise be of considerable length have been divided and numbered separately. A large number of simple problems have been included which are suitable for the more elementary courses given to the students in Civil, Mechanical, Mining and Chemical Engineering.

It has been thought best to print the answers to these problems separately. Teachers alone can obtain them from the author.

In conclusion the author wishes to mention the name of Mr. C. H. Porter, Instructor in Electrical Engineering, to whom credit is due for inaugurating and developing the present system of problem work given in the Department of Electrical Engineering at the Institute.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
September, 1908.

W. V. LYON.

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