

Preface

Mechanical Engineering being core subject of engineering and Technology, is taught to almost all branches of engineering, throughout the world. The subject covers various topics as evident from the course content, needs a compact and lucid book covering all the topics in one volume. Keeping this in view the authors have written this book, **basically covering the cent percent syllabi of Mechanical Engineering (TME-102/TME-202) of U.P. Technical University, Lucknow (U.P.), India.**

From 2004–05 Session UPTU introduced the New Syllabus of Mechanical Engineering which covers Thermodynamics, Engineering Mechanics and Strength of Material. Weightage of thermodynamics is 40%, Engineering Mechanics 40% and Strength of Material 20%. Many topics of Thermodynamics and Strength of Material are deleted from the subject which were included in old syllabus *but books available in the market give these useless topics, which may confuse the students. Other books cover 100% syllabus of this subject but not covers many important topics which are important from examination point of view.* Keeping in mind this view this book covers 100% syllabus as well as 100% topics of respective chapters.

The examination contains both theoretical and numerical problems. So in this book the reader gets matter in the form of questions and answers with concept of the chapter as well as concept for numerical solution in stepwise so they don't refer any book for Concept and Theory.

This book is written in an objective and lucid manner, focusing to the prescribed syllabi. This book will definitely help the students and practising engineers to have the thorough understanding of the subject.

In the present book most of the problems cover the Tutorial Question bank as well as Examination Questions of U.P. Technical University, AMIE, and other Universities have been included. Therefore, it is believed that, it will serve nicely, our nervous students with end semester examination. Critical suggestions and modifications by the students and professors will be appreciated and accorded

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Feature of book

1. Cover 100% syllabus of TME 101/201.
2. Cover all the examination theory problems as well as numerical problems of thermodynamics, mechanics and strength of materials.
3. Theory in the form of questions – Answers.
4. Included problems from Question bank provided by UPTU.
5. Provided chapter-wise Tutorials sheets.
6. Included Mechanical Engineering Lab manual.
7. No need of any other book for concept point of view.