



GOVERNMENT OF TAMIL NADU

HIGHER SECONDARY SECOND YEAR

VOCATIONAL EDUCATION

Basic Civil Engineering

THEORY & PRACTICAL

A Publication Under Free Textbook Programme of Government of Tamil Nadu

Department of School Education

Untouchability is Inhuman and a Crime

Government of Tamil Nadu

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NOT FOR SALE

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Preface

This book on “Basic Civil Engineering” has been written entirely based on new syllabus framed by TNSCERT. The subject matter is explained in a simple and lucid language, lightened by sufficient colourful diagrams, illustrations with learning objectives.

In each chapter, Quotes, Activities, “Do you Know?” and web search links were given which enhance the students knowledge. QR Codes for the tough area of the subject were marked. This will help the students to understand the subject further in detail. A set of Model Questions were also included at the end of each unit.

Case studies which were included at the end of this book would be useful to motivate the students and also give an idea about the diversity of their course.

I extend my sincere thanks to the Director, Joint Director and Staff members whose patronage on this book to come out and the committee of learned Teachers who shouldered the responsibility to bring the book in good shape.

Despite all our efforts, some errors and minor mistakes might have crept in. Your positive suggestion, regarding the improvement of this book will be thankfully acknowledged.



HOW TO USE THE BOOK?

Learning Objectives

Learning objectives are brief statements that describe what students will be expected to learn by the end of school year, course, unit, lesson or class period

Chapter Outline

Illustrate the complete overview of chapter



Amazing facts, Rhetorical questions to lead students to Engineering inquiry

Activity

Directions are provided to students to conduct activities in order to explore, enrich the concept

Infographics

Visual representation of the lesson to enrich learning

Evaluation

Assess students to pause, think and check their understanding



To motivate the students to further explore the content digitally and take them in to virtual world

Career corner

List of professions related to the subject

References

List of related books for further details of the topic

Web links

List of digital resources

Glossary

Explanation of Engineering terms

Competitive Exam questions

Model questions to face various competitive exams



Career Guidance

Vertical Mobility - Higher Education

After completion of Basic Civil Engineering Vocational Group, students are eligible

- To join Bachelor degree in any discipline in Engineering Colleges.
- To join Bachelor degree in Architecture.
- To join directly in second year Diploma Engineering in polytechnic colleges in any discipline.
- To join AMIE through Distance education which is equal to Bachelor in Engineering.
- To join Diploma in Teacher Education.
- To join B.Sc Mathematics.
- To join B. Com., B.A., B.B.A, B.C.S, B.C.A, etc.,
- To join B.L, L.L.B (Law Courses)
- To join Diploma and B.Sc in Catering Technology.

Horizontal Mobility (Employment/Self Employment)

Employment

Join as Apprentice Trainee/Site Supervisors in reputed companies like

- L & T Construction pvt ltd.
- Various private construction companies.
- As CAD Draughtsman in Architectural offices.
- As field surveyor.
- As quantity surveyor.

Self-Employment

- After getting sufficient knowledge in this field, can do Building Construction Works individually.



Competitive Exam

- TNPSC – www.tnpsc.gov.in
- Railway Recruitment Board (RRB) www.Indainrailways.gov.in
- Indian Navy – www.indiannavy.nic.in
- Indian Army – www.indiannavy.nic
- Indian Air Force – www.indianairforce.nic.in
- Indian Coast Guard – www.joinindiancoastguard.gov.in
- Tamilnadu Uniform Service Recruitment Board – www.tnsrb.gov.in
- Central Reserve Police Force (CRPF) [www. http://crpf.nic.in](http://www.http://crpf.nic.in)
- Indian Postal Department – www.indianpost.gov.in
- LIC of India www.lic.in



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E-book



Assessment



Basic Civil Engineering THEORY