

Civil Engineering Material Testing Lab Manual



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Kripa Drishti Publications, Pune.

**CIVIL ENGINEERING
MATERIAL TESTING LAB
MANUAL**

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PREFACE

Concept of a dwelling is most primitively developed idea, which arose out of, we can say a very popular saying, “Need is the mother of invention”. With advancement of civilization, requirement for ‘structures’ for use other than shelter was also felt, like schools & universities for education, hall and auditoriums for gathering, and so on. With this need, engineering and technology required essentially for materialisation of these needs also developed.

Civil engineering material testing has been a boon to mankind when it comes to ‘Buildings & Structures’. Civil engineering material owing to its versatility has been used by designers and engineers all over the world in its different forms viz, plain, reinforced and pre-stressed, to design and build magnificent structures. Researches in the field of Civil engineering material testing have helped in development of concrete with high durability and performance. This has been possible due to experimental investigations and analyses by engineers and scientists on the subject.

This manual has been prepared in the form of a ‘complete package’ that includes, the tests which have been written very carefully, meeting the standard procedures adopted by the Indian Standards, descriptive figures that aid the understanding, discussion sections that intrigues the analytical & rational thinking. The selection of the tests has been done very precisely, incorporating the very important ones from the subject. In the end, a separate section for Objective type questions has also been incorporated which is exclusively devoted to Civil engineering material. The language has been kept lucid keeping in view the wide readership which includes students, demonstrators, lecturers, field personnel and others.

Though ample efforts have been made to produce the manual with minimum flaws but they may have still crept in. We would be very gracious to the readers who would bring to our notice the errors in the manual.

Lastly, we are also very thankful to Kripa Drishti Publications for taking keen interest in the work & extending all their support in bring out the manual in its present form.

**Dr. Krishan Kumar Saini,
Dr. Suresh Singh Sankhla,
Mohit Bhoot**

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