

**As per New Syllabus of
Vivekanand College Kolhapur (Autonomous)
B.Sc. Part-I**



PRACTICAL COURSE IN PHYSICS



**S. V. MALGAONKAR
G. J. NAVATHE**

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C. J. KAMBLE**

Dr. S. I. INAMDAR

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INTRODUCTION TO

PRACTICAL COURSE IN PHYSICS

As Per New Revised Syllabus of Vivekanand College, Kolhapur (Autonomous)
with Effect from June 2018
FOR
B.Sc. Part I

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PREFACE

It is a matter of satisfaction to the authors in bringing out this book entitled "**Practical-Course in Physics for B.Sc.-I**". Realising the need of students and teachers the book is written in accordance with the requirements of syllabus of B.Sc.-I Practical of Shivaji University, Kolhapur.

It is our great pleasure to give this book, at the hands of students and teachers. The purpose of this practical book is to provide up-to-date study of various experiments. The presentation given in the book certainly guide the student in writing the journal.

All efforts have been made to use simple, accurate and scientific language throughout the book. Long teaching experience of the authors and a large number of source-books have helped in bringing the exactness in the book. Sufficient number of oral questions have been included at the end of each experiment to make it reasonably self sufficient. Honourable attempts have been made to present error free book. Yet some mistakes may have inadvertently crept in. Valuable suggestions from students, teachers are welcome for bringing out subsequent editions.

We are heartly thankful to Principal Dr. S. Y. Hongekar, Executive Secretary, Shri Swami Vivekanand Shikshan Sanstha Kolhapur, Mrs. Shubhangi Gavade, the secretary Shri Swami Vivekanand Shikshan Sanstha, Kolhapur, Dr. H. B. Patil Principal Vivekanand College Kolhapur, Dr. V. C. Mahajan Vivekanand College Kolhapur for inspiring us to write this book.

We are thankful to Nirali Prakashan Pune, for making us a part of their team of Authors. We thank Mr. Dineshbhai Furia and Shri Jigneshbhai Furia for their constant encouragement and publishing this book. We are very much thankful to Mr. Virbhaval Shinde, Marketing Executive Kolhapur and Mr. Ashok Nanaware Sangli, District Mr. Santosh Bare for typing, Mr. Kiran Velankar for Proof Reading and Mrs. Anjali Muley for drawing figures for their hearty cooperation.

Authors hope that this practical book will be of immense help and guidance for all students.

Authors

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Part-I : Mechanics

1. Measurements of Length and Diameter

Aim :

- (1) To determine the length of a given body by using vernier calliper, hence determine volume.
- (2) To determine the diameter of a wire by using screw gauge and determine area.
- (3) To determine the radius of curvature of a spherical surface by using spherometer.
- (4) To determine or to measure short vertical or horizontal distance by using travelling microscope.

Apparatus :

Vernier calliper, screw gauge, spherometer, travelling microscope.

Diagram :

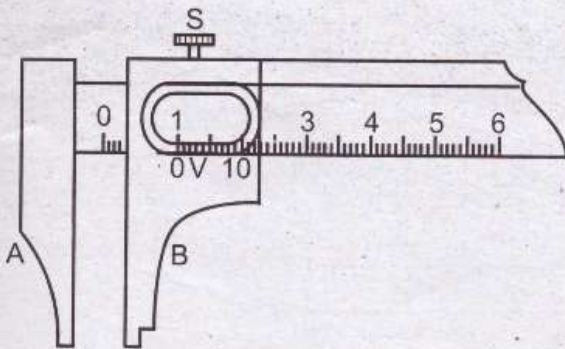


Fig. 1.1 : Vernier Calliper

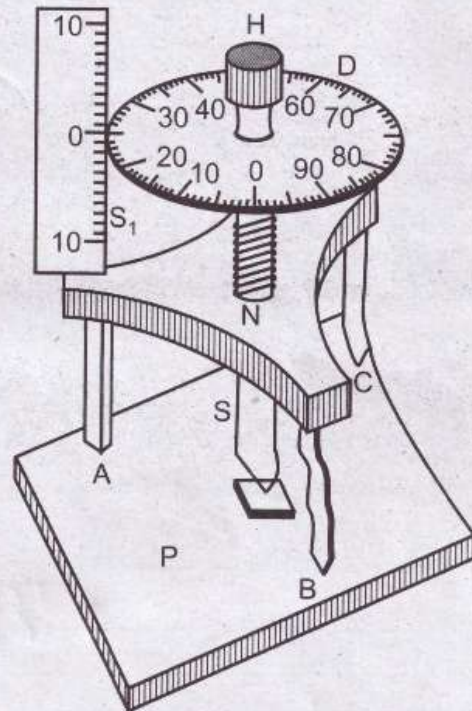


Fig. 1.2 : Spherometer

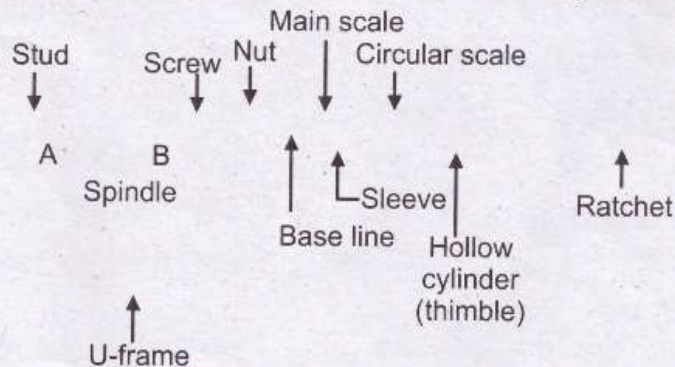


Fig. 1.13 : Screw Gauge

(1)

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