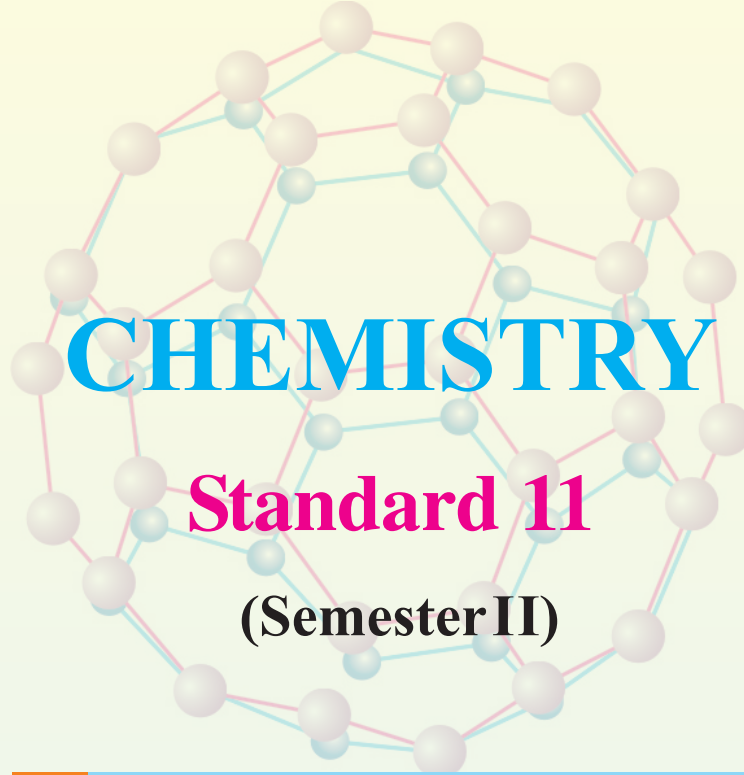


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PLEDGE

India is my country.
All Indians are my brothers and sisters.
I love my country and I am proud of its rich and varied heritage.
I shall always strive to be worthy of it.
I shall respect my parents, teachers and all my elders and treat everyone with courtesy.
I pledge my devotion to my country and its people.
My happiness lies in their well-being and prosperity.

Price : ₹ 69.00



Gujarat State Board of School Textbooks
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Authors

Dr. I. M. Bhatt (Convener)
Shri J. P. Dave
Dr. Mayur C. Shah
Dr. Jagrutiben Patel
Smt. Shobhnaben M. Thakkar
Shri C. I. Patel

Reviewers

Shri Dilip M. Dhare
Shri V. R. Patel
Shri Mukesh B. Patel
Dr. Mukesh P. Mandani
Shri Manan S. Joshi
Shri D. C. Bhatt
Shri Shailesh S. Parmar

Language Correction

Dr. Rucha A. Bhrahmbhatt

Artist

Shri G. V. Mevada

Co-ordinator

Shri Chirag H. Patel
(Subject Co-ordinator : Physics)

Preparation and Planning

Shri C. D. Pandya
(Dy. Director : Academic)

Lay-out and Planning

Shri Haresh S. Limbachiya
(Dy. Director : Production)

PREFACE

The Gujarat State Secondary and Higher Secondary Education Board has prepared new syllabi in accordance with the new national syllabi prepared by N.C.E.R.T. based on N.C.F.-2005 and core-curriculum. These syllabi are sanctioned by the Government of Gujarat.

It is a pleasure for the Gujarat State Board of School Textbooks to place before the students this textbook of **Chemistry Standard 11 (Semester II)** prepared according to the new syllabus.

Before publishing the textbook, its manuscript has been fully reviewed by expert and teachers teaching at this level. Following suggestions given by teachers and experts. We have made necessary changes in the manuscript before publishing the textbook.

The Board has taken special care to ensure that this textbook is interesting, useful and free from errors. However, we welcome any suggestion, from people interested in education, to improved the quality of the textbook.

H. K. Patel GAS

Director

Date : 25-5-2012

Dr. Hasmukh Adhiya IAS

Executive President

Gandhinagar

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FUNDAMENTAL DUTIES

It shall be the duty of every citizen of India :*

- (a) To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) To cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) To uphold and protect the sovereignty, unity and integrity of India;
- (d) To defend the country and render national service when called upon to do so;
- (e) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) To value and preserve the rich heritage or our composite culture;
- (g) To protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;
- (h) To develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) To safeguard public property and to abjure violence;
- (j) To strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.

* Constitution of India : Section 51-A

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About This Textbook...

It has been decided by the Central Government of India, that only one competitive examination will be conducted at national level for the study of higher education. As a result of this planning, the formation of Core-Curriculum took place. The meaning of this was that there must be same syllabus in the subjects of Science Stream for national competitive examination. The same syllabus can be possible if the book is prepared according to NCF-2005.

Hence, by the Gujarat State Higher Secondary Education Board, a new Chemistry syllabus in Chemistry was prepared by experts and teachers on the basis of core-curriculum and NCF-2005.

Gujarat State Government being attempting for 'Education without Burden' plan will give comfort to students. Gujarat State Board of School Textbooks made positive arrangements for students to have advantage of the expertise of the teachers from Schools and Colleges having their own teaching experience, and experience in drawing questions for GUJCET examination as well as Higher Secondary Examination Board. The writers associated with the writing of this book have written units which are reviewed by other teachers, experts and reviewers and tried to prepare this book useful at national level by carrying out proper additions and alterations.

One important matter has been added. Changes have been expected in different words in this new book viz. atomic mass instead of atomic weight, molecular mass instead of molecular weight, enthalpy instead of energy, bar instead of atmosphere as well use of unit pascal. The word like reactivity will appear to be unknown but its inclusion in the modern study was found to be essential. In addition to this, in this existing book, instead of the nomenclature, units etc. the modern SI units, method of nomenclature etc. as in NCERT book are used in the text. This will appear somewhat new but being very useful in competitive examinations and to counteract the new challenges and to obtain achievement in present education system, it should be accepted.

Competitive examinations like AIEEE, IIT, PMT are being conducted. SI units are used in the question papers. In our GUJCET examination, SI units not being used, students were finding it difficult at the above competitive examination but we are sure that the students will make the name of Gujarat, as a state of great pride at national level.

The subject content, presentation, examples are included in this book in such a way that the students will find easy in understanding. Attempt has been made at each level even then, if teacher, friend or anybody will send suggestion for attainment of completeness, the Gujarat State Board of School Textbook will acknowledge with thanks and will include in the revised edition or new re-print.

'To send proper suggestion is your work and to implement it is our work.' By keeping this goal, the students of Gujarat State may obtain success at national level being the object, all will join in these is our expectation and request.

It is a matter of great pleasure that **the year 2011 will be celebrated as International Year of Chemistry (IYC) in the memory of Madam Curie.**

– Authors