ગુજરાત રાજ્યના શિક્ષણવિભાગના પત્ર—ક્રમાંક મશબ/1211/414/છ, તા. 11-4-2011 – થી મંજૂર

CHEMISTRY

Standard 11

(Semester I)



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: ₹ 39.00



Gujarat State Board of School Textbooks 'Vidyayan', Sector 10-A, Gandhinagar-382010

© Gujarat State Board of School Textbooks, Gandhinagar Copyright of this book is reversed by Gujarat State Board of School Textbooks. No reproduction of this book in whole or in part, or in any form is permitted without written permission of the Director of the board

Authors

Dr. I. M. Bhatt (Convener)

Shri J. P. Dave

Dr. Mayur C. Shah

Dr. Jagruti Patel

Smt. Shobhnaben Thakkar

Shri C. I. Patel

Reviewers

Shri D. M. Dhare

Shri V. R. Patel

Shri I. H. Qureshi

Shri H. B. Gami

Shri B. A. Nayak

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-curriculam. 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 I) 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 improve the quality of the textbook.

H. K. Patel GAS

Dr. Nitin Pethani

Director

Executive President

Date: 1-9-2013

Gandhinagar

First Edition: 2011, Reprint: 2011, 2012, 2013

Published by : H. K. Patel, Director, On behalf of Gujarat State Board of School Textbooks,

'Vidyayan', Sector 10-A, Gandhinagar

Printed by

y :

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

INDEX

1.	Basic Concepts of Chemistry	1-14
2.	Structure of Atom	15-30
3.	Classification of Elements and Periodicity in Properties	31-48
4.	Redox Reactions	49-61
5.	Hydrogen	62-73
6.	The s-Block Elements (Alkali and Alkaline Earth Elements)	74-90
7.	Basic Principles of Organic Chemistry	91-109
•	Appendix	110-116
	Atomic Number and Molar Mass of Elements	
	Electronic Configuration of Elements	
	Physical Constants	
	Some Useful Conversion Factors	
	• Nobel Prize Winners of 21 st Century (Chemistry)	