



INFORMATION TECHNOLOGY

Standard Eleven



The Coordination Committee formed by GR No. Abhyas - 2116/(Pra.Kra.43/16) SD - 4 Dated 25.4.2016 has given approval to prescribe this textbook in its meeting held on 20.6.2019 and it has been decided to implement it from academic year 2019-20.

INFORMATION TECHNOLOGY

STANDARD ELEVEN

(Arts, Commerce and Science)



Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune.



Download DIKSHA App on your smartphone. If you scan the Q.R. Code on this page of your textbook, you will be able to access full text. If you scan the Q.R. Code provided, you will be able to access audio-visual study material relevant to each lesson, provided as teaching and learning aids.

First Edition: 2019 © **Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune- 411004.**

The Maharashtra State Bureau of Textbook Production and Curriculum Research reserves all rights relating to the book. No part of this book should be reproduced without the written permission of the Director, Maharashtra State Bureau of Textbook Production and Curriculum Research, 'Balbharati', Pune.

Information Technology Subject Committee and Study group

Shri. Sanjay Kulkarni, Chairman

Smt. Julie Kanade

Smt. Neha N. Katti

Shri. Prashant M. Patil

Smt. Vijaya A. Parekar

Smt. Archana K. Mulay

Smt. Dipali G. Dhumal

Smt. Jyoti J. Barge

Smt. Aasha C. Mohite

Smt. Sushama S. Patil

Smt. Sangita A. Jaju

Shri. Tayyabali M. Sayyed

Shri. Nilesh S. Ghavate

Shri. Milind Oka

Shri. Prashant D. Hakim

Shri. Satyawar B. Guram

Shri. Nitin R. Choubey

Dr. Ajaykumar Lolage

(Member Secretary)

Cover & Illustrations

Smt. Pradnya Kale

Typesetting

Textbook Bureau, Pune

Production

Shri. Sachchidanand Aphale

Chief. Production Officer

Shri. Sachin Mehta

Production Officer

Shri. Nitin Wani

Asst. Production Officer

Paper

70 GSM Creamwove

Print Order

N/PB/2019-20/50,000

Printer

M/S. SHARP INDUSTRIES,
RAIGAD

Chief Co-ordinator

Smt. Prachi Ravindra Sathe

Co-ordination

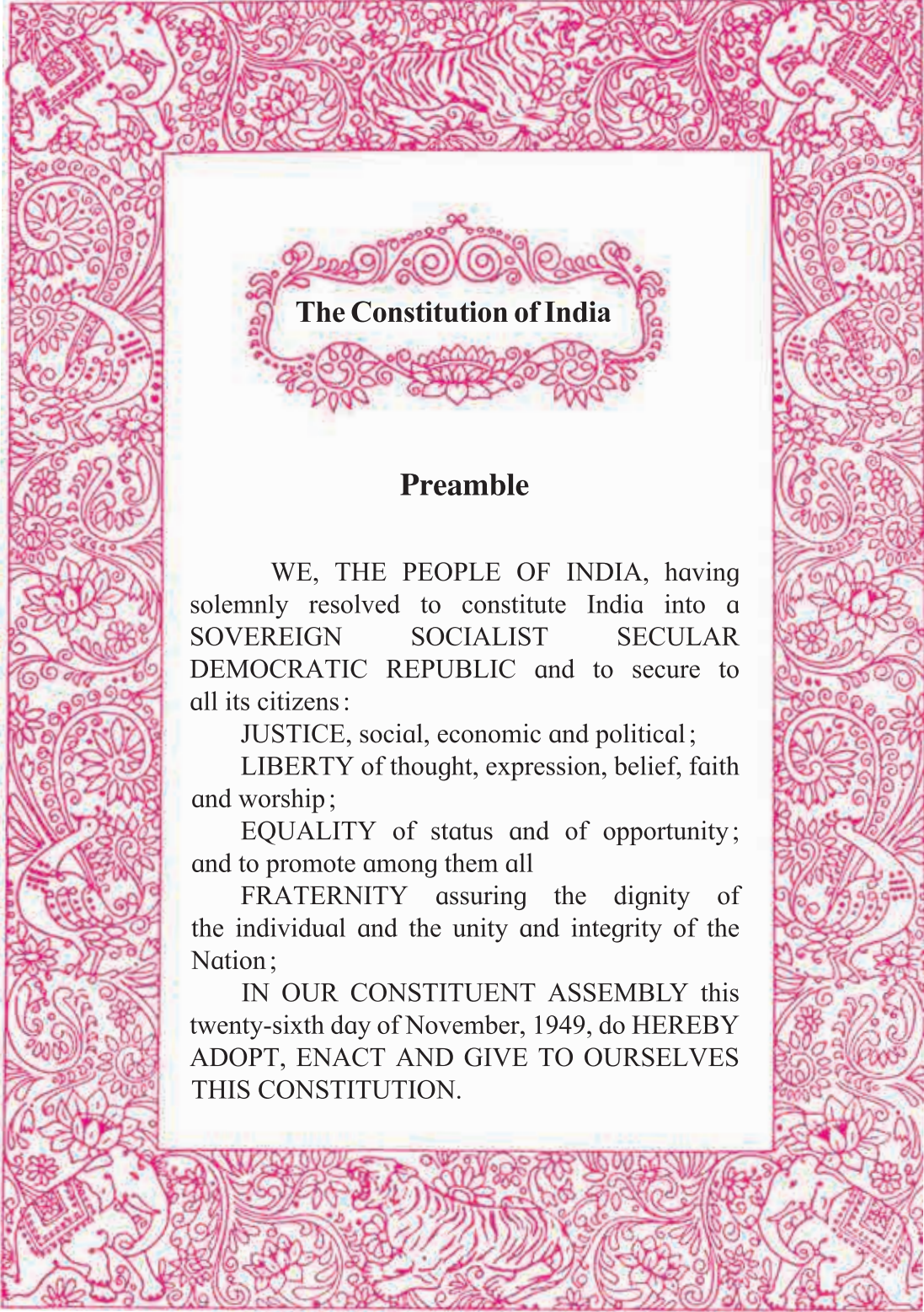
Dr. Ajaykumar Lolage
Special Officer, Work Experience,
Incharge Special Officer,
Health and Physical Education,
Textbook Bureau, Pune

Publisher

Vivek Gosavi,

Controller

Maharashtra State Textbook
Bureau, Prabhadevi,
Mumbai-400025



The Constitution of India

Preamble

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens :

JUSTICE, social, economic and political ;

LIBERTY of thought, expression, belief, faith and worship ;

EQUALITY of status and of opportunity ; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation ;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,
Jaya jaya jaya, jaya hē.

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 give my parents, teachers
and all elders respect, and treat
everyone with courtesy.

To my country and my people,
I pledge my devotion. In their
well-being and prosperity alone lies
my happiness.

Foreword

Dear Students,

First of all Congratulations for completing your school education and welcome into the world of 10+2, which is often called as Junior College or Higher Secondary Education. Now you have stepped into the new horizon of education which is waiting for you. In these golden years of education, you are being exposed to many new technologies and skills. The skills, which you will acquire in these two years, are definitely going to help you throughout your life.

You all are blessed as you are born in this new era of technology and digital world where the word “Impossible” made it “I-m-possible” where I stand for Internet. Use of Information and communication Technology made your life pleasant and comfortable.

It is often seen that to handle the technology is quite easy but nobody is bothered to identify the know-how and pros and cons of the same.

In this book you will venture into the new technologies of Information Technology. The book is a combination of theoretical as well as practical skills. The Skill Oriented Practical (SOP) will give you a peek into the world of digital technology. You will certainly master a specific skill set which will help you further to enhance your higher education or job opportunities.

In this book new techniques of learning by doing are incorporated such as ‘quizzes’, ‘do it yourself’, ‘activity sheets’ which will promote thought provoking skills within you. The different activity sections in the textbook will definitely improve your logical, analytical and creative skills. You will learn about the emerging technologies of the digital world, which is the need of the era.

This book will surely create interest in the field of Information Technology due to its colourful presentation and enriching content. You will definitely appreciate and learn the contents with interest and enthusiasm through Q.R. Code.

Please do inform us what part of this book you found useful or difficult to understand.

We wish you the best in your future academic life.



(Dr. Sunil Magar)
Director

Pune

Date : 20 June 2019

Maharashtra State Bureau of Textbook
Indian Solar Year : 30 Jyeshtha 1941 Production and Curriculum Research, Pune

For Teachers

Dear Teacher,

In this world of globalisation, Information Technology is a mature part of curriculum and has become a daily bread of Life. Technology changes with time, but concepts of handling data and converting data into information are constant and it is reflected in the terminology of Information Technology.

We present this book which is a combination of Computer basics, concepts, ideas and skill oriented practicals (SOP) in view of Digital India.

This duplet is entrusted upon you to bring about advanced computer literacy in our students. This combination of Theory and skill Oriented Practical's (SOP) will make a remarkable computer based revolution in the knowledge of students. This book will achieve our objective of career developing and enhancing the skills well as immediate employment in future. This book is designed with eye catching images in order to appeal the students to learn with interest and enthusiasm. The book has different activities to develop the students skills, and give him opportunity to explore different computer related aspects based on different topics. 'Case studies', 'Quizzes', 'Do it yourself', 'Test your skills' these small sections will definitely add a third dimensional thinking skills within the students. The book has been designed in such a way that the contents will be useful to the students from any stream in junior college whether Arts, Commerce or Science.

Dear Teachers, the Skill Oriented Practical (SOP) has six topics. You can select any four skills or practicals for your students based on his subject of choice and liking.

This book will definitely create job opportunities like Jr. web designers, Jr. Account Assistant, Jr. Multimedia Designers/editors etc. at this 10+2 level. It will boost his further career prospects be it in engineering CS, BCS BCA, B.Pharm CA, ICWA and even creative field like advertisements. The book gives hands on experience to the students and will definitely create confidence to handle the digital equipments. The Students will imbibe digital competency with your guidance and efforts. The 'Cyber law' topic will make our youngsters ethical users of digital media and create social awareness. The contents will help learners to **develop ideas, find things out, make things happen, exchange and share information**. We are confident that enthusiastic teachers and creative teachers like you will welcome the book.

This book has potential to create awareness about open source softwares. The book has adopted FOSS policy as per the Government of India regulation. This will definitely take our students towards Digital India Program.

Information Technology
Subject Committee and Study Group
Textbook Bureau, Pune

Competency Statements For Information Technology

Standard - XI

Competency
Theory
1. Key Concepts to create basic understanding about IT Enabled Technologies. 2. To acquire technical know-how about different types of software. 3. To acquire knowledge about 'Open source software' 4. To get knowledge about LINUX Commands. 5. To make the students aware about database concepts. 6. To introduce students to different terminologies used in database management systems. 7. To develop logical, problem solving, analytical and cognitive skills. 8. To acquire knowledge about webpage development. 9. To get technical knowledge to create dynamic web pages. 10. To make student socially aware while using internet / computer. 11. To create awareness about ethical ways of dealing with cyber world. 12. To develop problem solving skills using case studies, programs, activities etc.
Skill Oriented Practicals (SOP)
1. To develop ability to use workplace productivity tool. 2. To develop ability to create presentations, handle documentation, easy way of calculation or computation. 3. To acquire web development skills. 4. To collect user data with the help of 'Form' feature. 5. To create dynamic web pages with the help of scripting language. 6. To develop logical skill by using different structures. 7. To acquire knowledge about Built-in-Functions in scripting language. 8. To introduce skill sets regarding use of computerized accounting. 9. To maintain & display ledger accounts using accounting software. 10. To create & edit image by using different tools. 11. To develop raster and vector images using image manipulation tools. 12. To enhance the creative ability by developing digital contents. 13. To acquire basic knowledge to use database commands. 14. To create & maintain tables in a database. 15. To acquire knowledge to Insert, update & delete data in tables. 16. Use of computing skills for career opportunities.

INDEX

Information Technology

Standard - XI

(Arts, Commerce and Science)

No.	Title of the Chapter	Page No
Theory		
1.	Basics of Information Technology	1
2.	Introduction to DBMS	20
3.	Impressive Web Designing	30
4.	Cyber Law	60
Skill Oriented Practicals (SOP) (Select Any Four Skill Oriented Practicals from the following list)		
1.	Daily Computing (Libre Office)	72
2.	Web Designing (HTML - 5)	84
3.	Client Side Scripting (JavaScript)	85
4.	Accounting Package (GNUKhata)	86
5.	Digital Content Creation (GIMP, Inkscape)	96
6.	DBMS (PostgreSQL)	113
Appendix : Steps for Installing		
•	Linux OS	119
•	Libre Office	127
•	PostgreSQL	129
•	GNUKhata	131
Abbreviations		133

