

INFORMATION AND COMPUTER TECHNOLOGY

CLASS – IX



CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Kendra 2, Community Centre, Preet Vihar, Delhi-110 092 India

Information and Computer Technology Class IX

1st Edition: April 2014, CBSE India

Copy :

Price :

Paper used 80 gsm CBSE Watermark Maplitho Paper

No Part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or any means, electric, mechanical photocopying, recording or otherwise without the prior permission of the publisher.

PUBLISHED BY : The Secretary, Central Board of Secondary Education
Shiksha Kendra 2, Community Centre
Preet Vihar, Delhi-110 092

DESIGN, LAYOUT : Laser Tech Prints, 13/9 W.E.A., Karol Bagh
New Delhi-110 005

PRINTED BY :

भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण ¹प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म

और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए
तथा उन सब में व्यक्ति की गरिमा

²और राष्ट्र की एकता और अखंडता
सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई० को एतद्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से “प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य” के स्थान पर प्रतिस्थापित।
2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से “राष्ट्र की एकता” के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्तव्य

51 क. मूल कर्तव्य – भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह:

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करें;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामाजिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परीक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणीमात्रा के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों से सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई ऊंचाइयों को छू ले;

¹(ट) यदि माता-पिता या संरक्षक हैं, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।

1. संविधान (छयासीवां संशोधन) अधिनियम, 2000 द्वारा प्रतिस्थापित।

THE CONSTITUTION OF INDIA

PREAMBLE

WE THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹**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 the² unity and integrity of the Nation;

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

1. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f.. 3.1.1977)

2. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Unity of the Nation" (w.e.f.. 3.1.1977)

Chapter IV A

FUNDAMENTAL DUTIES

ARTICLE 51A

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 of our composite culture;
- (g) to protect and improve the natural environment including forests, lake, rivers, 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;
- ¹(k) to provide opportunities for education to his/her child or, as the case may be, ward between age of 6 and 14 years.

1. Subs, by the Constitution (Eighty-Sixth Amendment) Act. 2002.

Foreword

In the 21st century, an ability to work with information and communication technologies is becoming as essential to education, life and workplace success as “reading, writing and arithmetic”.

Information Communication Technology (ICT) has an extensive horizon and includes all the technologies used for communication of information. These include devices such as computers, internet and intranet, local and wide area networks (wired and wireless), voice mail, e-mail, audio visual systems, compact discs and video discs, broadcast receiving systems and telecommunication systems, media, printed media, virtual learning centers, instructional software, education television, satellite communication, cable TV, conventional and interactive radio used in teaching and learning.

In this century it has become mandatory that everyone must have a basic understanding of ICT and must learn to make productive use of it, in-order to be good students and employable workers. Hence it is necessary for teaching fraternity to make a conscious effort and devise curriculum to impart valuable knowledge and skills required for computing and communications devices i.e. software that operates them, applications that run on them and systems that are built with them.

Be it e-learning, blended learning or distant learning ICT has completely penetrated in school education and has brought a major transformation in teaching and learning process. It has become an integral and indispensable part of modern education system.

Recognizing the potential value of ICT in education, CBSE wants to ensure proper integration of ICT in schools and its use in pedagogy.

I am happy to release Information and communication Technology Book for Class – IX. I would like to express my deep appreciation to the text book development team for their contribution. Appreciation is also due to Dr. Sadhana Parashar, Prof. and Director (Academics, Research, Training and Innovation) and Dr. Kshipra Verma, Education Officer, CBSE in bringing out this publication.

It is hoped that all students and teachers will benefit by making best use of this publication. Their feedback will be highly appreciated for further improvement.

Vineet Joshi
Chairman

Acknowledgements

CBSE ADVISORS

- ◆ Shri Vineet Joshi, Chairman, CBSE
- ◆ Dr. Sadhana Parashar, Prof. & Director
(Academics, Research, Training and Innovation)

DEVELOPMENT TEAM

- ◆ Ms. Anuradha Aggarwal, Lecturer, Sri Ram College of Commerce, Delhi University
 - ◆ Ms. Deepa Puri, Consultant, Mumbai
 - ◆ Ms. Kshipra Verma, Education Officer, CBSE, New Delhi.
- ◆ Ms. Ritu Ranjan, Indrapastha International School, Paschim Vihar, New Delhi.

EDITORS

- ◆ Ms. Anju Jhanji, DAV School, Gurgaon
- ◆ Ms. Garima Gupta, DLDAV Public School, ND Block, Pitam Pura, New Delhi
 - ◆ Ms. Sutapa Sen, Consultant

MEMBER COORDINATOR

Ms. Kshipra Verma, Education Officer, CBSE, New Delhi.

Content

Foreword

Acknowledgement

Chapter 1: Basics of Internet	1 – 23
◆ Introduction	1
◆ World Wide Web	2
◆ Web Servers	3
◆ Web Site	6
◆ Webpage	11
◆ 1 Tool Bar	12
◆ Blogs	14
◆ URL	17
 Chapter 2: Web Services	 24 – 38
◆ Introduction	24
◆ Electronic mail or E Mail	24
◆ Chat	27
◆ Video Conferencing	28
◆ E-Learning	30
◆ E-Reservation	31
◆ E-Shopping	32
◆ Social Networking	33
◆ E groups	34
 Chapter 3: Introduction to GIMP	 39 – 57
◆ Image Editing Tools-Introduction	39
◆ List of commonly used Image Editing Tools	39
◆ GIMP	41
◆ Starting GIMP	43

◆ Understanding GIMP window	47
◆ Menus of Gimp window	50
◆ Editing the Images	51
◆ 1 Layers	54
Chapter 4: Introduction to HTML	58 – 69
◆ Introduction	58
◆ Overview of HTML	58
◆ Structure of HTML document	60
◆ Saving the HTML document	60
◆ Container and Empty Tags	61
Chapter 5: HTML II	70 – 95
◆ Introduction	70
◆ Image	75
◆ LINKING	81
Chapter 6: Security Threats and Safety Measures	96 – 108
◆ Introduction	96
◆ Viruses	96
◆ Worms	97
◆ Trojan horses	98
◆ Spyware	98
◆ Malware	99
◆ Spams	99
◆ Hackers and crackers	100
◆ Anti Virus Tools	100
◆ Data Backup and security	101
Chapter 7: Project	109-130
◆ Sample Case Studies	110