M.M. Blonde



SANT GADGE BABA AMRAVATI UNIVERSITY COMPUTER SCIENCE TEACHERS' ASSOCIATION

COMPUTER SCIENCE

Web Technology and Advanced Programming in C

Computer Science / Computer Application/ Information Technology

B.Sc. PART- I (SEMESTER -II)

Authors

- . Dr. P. N. Mulkalwar . S. G. Choudhary
- M. M. Bhonde
- · A. A. Tayade

Editors

- . Dr. A. B. Manwar



Copyright © 2020, By DnyanPath Publication, Amravati (Maharashtra)

No part of this publication may be reproduce or distributed in any form or by any means, electronic, mechanical, photocopy, recording, or otherwise or stored in a database or retrieval system without the prior written permission of publishers. This edition can be exported from India only by the Publishers.

Published by the DnyanPath Publication (INDIA)

A TEXT BOOK OF COMPUTER SCIENCE SEMESTER - II

ISBN 13 : 978-93-87278-71-4 Edition : First, January 2020





Mahatma Fule Sankul, Infront of Abhiyanta Bhavan, Shegaon Naka, V.M.V. Road, Amravati - 444603 (Maharashtra)

Visit us: www.dnyanpath.org

Contact us: info@dnyanpath.org | dnyanpathpub@gmail.com

Phone: 08600353712, 09503237806

Printed at Shri Gurudeo Printers, Amravati.

Mahatma Fule Sankul, Shegaon Naka, V.M.V. Road, Amravati - 444603 (Maharashtra)

Price : ₹ 120 /-

COMPUTER

A TEXT BOOK OF

SCIENCE

Web Technology and Advanced Programming in C

B.Sc. PART- I (SEMESTER- II)

- AUTHORS -

Dr. P. N. Mulkulwar

Head & Associate Professor Department of Computer Science, Amolakchand Mahavidyalaya, Godhani Road, Yavatmal

M. M. Bhonde

Assistant Professor,
Department of Computer Science,
Shri Shivaji Science College,
Annravati.

A. A. Tayade

Assistant Professor
Department of Computer Science,
G. S. Science, Arts And
Commerce College, Khamgaon

- EDITORS

S. G. Choudhary

Head & Associate Professor,

Department of Computer Science,
R. D. I. K. & K. D. College,

Badnera-Amravati.

Dr. A. B. Manwar

Associate Professor,
Department of Computer Science
Sant Gadge Baba Amravati University,
Amravati



SANT GADGE BABA AMRAVATI UNIVERSITY

COMPUTER SCIENCE TEACHERS' ASSOCIATION (SGBAUCSTA)

Sant Gadge Baba Amravati University Computer Science Teachers' Association (SGBAUCSTA) was established in the year 2015 to promote cooperation amongst Computer Science teacher community for betterment of students learning Computer Science at various levels.

Association publishes a News Letter, organizes student's activities like intercollegiate seminar competitions, chemi quiz, aptitude tests, national/international conference and other academic activities, also extends its collaboration and sponsorships for the organization of such events. Association is also contributing time to time in the revision university curriculum of subject Computer Science of under graduate and post graduate classes. In order to have uniformity in the teaching throughout the university, association is publishing books of Computer Science for all undergraduate classes. These book are written by the experienced teachers of various colleges as per revised syllabi of semester pattern of Sant Gadge Baba Amravati University, Amravati.

Hope this book will be also useful to our students to grasp the essence of the subject. The suggestions for improvement of this project are highly solicited.

- Executive Council -

President : Dr. H. M. Deshmukh , Amravati

Vice President : Dr. P. N. Mulkalwar, Yavatmal

Secretary : S. G. Choudhari, Badnera

Joint Secretary : Dr. H. S. Mahalle, Pusad

Treasurer : N. M. Jathe, Amravati

Members : L. R. Muley, Paratwada

Dr. P. E. Ajmere, Khamgaon

Dr. S. R. Kalmegh, Amravati

Preface

Sant Gadge Baba Amravati University Computer Science Teachers' Association is proud to present a text book for computer Science for the students of the second semester of B.Sc. This book has been designed after considering the syllabus of Sant Gadge Baba Amravati University.

The contents of the book are divided into six units. First three units are based on Web Technology including HTML and XML while the next three units cover the aspects of Advanced Programming in C Language. The concepts are illustrated with the help of neat and well labeled diagrams and supported with easy to understand examples. The terminologies are explained with the help of precisely designed algorithms.

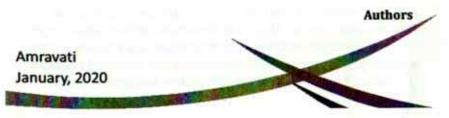
The authors have referred many standard books while preparing the contents of this book and we acknowledge our sincere gratitude towards those authors. The authors have also used simple and easy to understand language.

We have taken almost care to avoid the any kind of typographical mistake in the contents of the book. Mistakes that are overlooked during editing may please be reported so as to remove them in the subsequent edition.

We would like to thank the managing committee of SGBAUCSTA who have given this opportunity. We would also like to thank DnyanPath Publication Amravati for publishing this book. Our special thanks to S. G. Chaudhary and Dr. A. B. Manwar for sparing their valuable time to edit this book.

We are sure that this book would certainly benefit the students for enhancing their knowledge of the subject and would also help the teachers in their regular teaching.

Comments and suggestions for further improvements are always welcome.



		- INDEX-	
1.	HTML (Hyper Text Markup Language)		
	1.1	History of Markup Languages	- 1
	1.2	History of HTML	2
	1.3	Introduction to HTML	2
	1.4	Basic structure of HTML document	4
	1.5	Steps to create and view HTML document	6
	1.6	Tags in HTML	8
	1.7	Heading Tags	20
	1.8	Link tags	21
	1.9	<table> Tag</table>	23
	1.10	LIST Tag	27
	1.11	 tag	32
	1.12	Image formats	33
	1.13	 Tag	34
	•	Exercise	36
2.	CSS	(Cascading Style Sheet)	
	2.1	Introduction	39
	2.2	Declaration of Style Sheet	41
	2.3	Types of Style Sheet	42
	2.4	Properties of CSS	50
	2.5	Properties	55
	•	Exercise	71
3.			
	3.1	Introduction of XML	73
	3.2	Features of XML	74
	3.3	Comparisons Between HTML and XML	74
	3.4	Simple XML document	75
	3.5	Components of XML document	77
	3.6	Document Prolog	81
	3.7	Document Type Definition (DTD)	82
	3.8	Attributes	88
	3.9	XML with CSS	91
		Exercise	93
4.	Array		n III)
	4.1	Introduction	
	4.2	Array Declaration	98
	4.3	Two dimensional Array	104
	4.4	POINTER	108
	4.5	Address (&) and Indirection (*) Operators :	115
	4.6	Pointer Arithmetic (Pointer Increments and Scale Fa	ctor)117

4.7	Output of the program :	119
4.8	Pointer and character string:	124
4.9	Pointers and Functions	125
	Exercise	133
Func	tion	
5.1	Introduction	140
5.2	Introduction to Function	140
5.3	Need of Functions	144
5.4	Defining a Function	145
5.5	Function Declarations	146
5.6	Calling a Function	146
5.7	Category of Functions	148
5.8	Function Declaration and Prototypes	152
5.9	Function Arguments	154
5.10		158
5.11	Call by Reference	160
5.12	Return Values and Their Types	162
5.13	Function Arguments	163
5.14		164
5.15		166
5.16		169
	Exercise	172
Stru	cture, Unions and File Handing	7.00
6.1	Introduction:	175
6.2	Why Use Structure ?	175
6.3	Initialization of Structure Variables	179
6.4	Accessing Structure Elements	180
6.5	Structure Within a Structure or Nested Structure	181
6.6	Array of Structures	182
6.7	Uses of Structures	184
6.8	Union	185
6.9	File Management in C	189
6.10	Defining and Opening a File	190
6.11	Closing a File	192
6.12	Input/Output Operations On Files	193
6.13	Writing a File	194
6.14		198
6.15		201
100	Exercise	205
	All relici	4000
