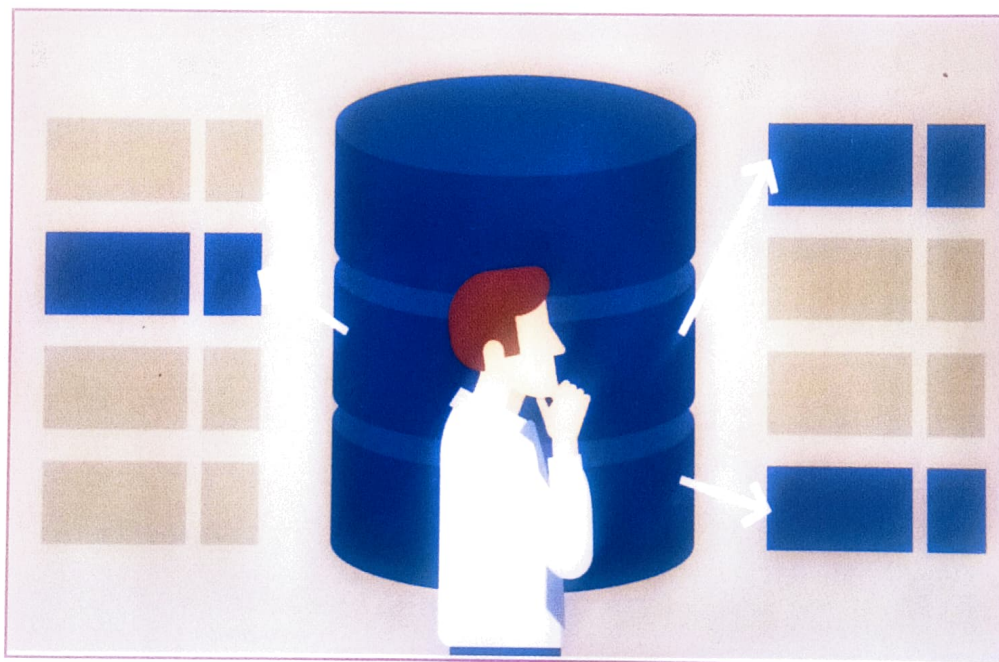


**NEW SYLLABUS
CBCS PATTERN**

**B.B.A.
(Computer Application)
Semester-II**

RELATIONAL DATABASE

**Dr. Ms. MANISHA BHARAMBE
ABHIJEET D. MANKAR**



Author's copy.

SPPU New Syllabus

A Book Of
**RELATIONAL
DATABASE**

For B.B.A.(Computer Application) : Semester - II

[Course Code 204 : Credit - 3]

CBCS Pattern

As Per New Syllabus, Effective from June 2019

Dr. Ms. MANISHA BHARAMBE

M.Sc. (Computer Science), M.Phil. Ph.D.
Vice Principal & Head,
Department of Computer Science,
MES Abasaheb Garware College,
PUNE 4.

ABHIJEET D. MANKAR

M.C.S., SET
Assistant Professor,
Department of Computer Science,
Tuljaram Chaturchand College of Arts,
Science and Commerce (Autonomous),
BARAMATI.

Price ₹ 260.00

 **NIRALI**TM
PRAKASHAN
ADVANCEMENT OF KNOWLEDGE




Principal
Tuljaram Chaturchand College
Baramati

N4944

First Edition : January 2020
 © : Authors

The text of this publication or any part thereof, should not be reproduced or transmitted in any form or stored in any computer storage system or device for distribution including photocopy, recording, taping or information retrieval system or reproduced on any disc, tape, perforated media or other information storage device etc., without the written permission of Authors with whom the rights are reserved. Breach of this condition is liable for legal action.

Every effort has been made to avoid errors or omissions in this publication. In spite of this, errors may have crept in. Any mistake or discrepancy so noted and shall be brought to our notice shall be taken care of in the next edition. It is notified that neither the publisher nor the authors or seller shall be responsible for any damage or loss of action to any one, of any kind, in any manner, therefrom.

Published By :

NIRALI PRAKASHAN

Abhyudaya Pragati, 1312, Shivaji Nagar,
 Off J.M. Road, Pune - 411005
 Tel - (020) 25512336/37/39, Fax - (020) 25511379
 Email : niralipune@pragationline.com

Polyplate

Printed By : **YOGIRAJ PRINTERS AND BINDERS**

Survey No. 10/1A, Ghule Industrial Estate
 Nanded Gaon Road
 Nanded, Pune - 411041
 Mobile No. 9404233041/9850046517

➤ DISTRIBUTION CENTRES

PUNE

Nirali Prakashan : 119, Budhwar Peth, Jogeshwari Mandir Lane, Pune 411002, Maharashtra
 (For orders within Pune) Tel : (020) 2445 2044; Mobile : 9657703145
 Email : niralilocal@pragationline.com

Nirali Prakashan : S. No. 28/27, Dhayari, Near Asian College Pune 411041
 (For orders outside Pune) Tel : (020) 24690204; Mobile : 9657703143
 Email : bookorder@pragationline.com

MUMBAI

Nirali Prakashan : 385, S.V.P. Road, Rasdhara Co-op. Hsg. Society Ltd.,
 Girgaum, Mumbai 400004, Maharashtra; Mobile : 9320129587
 Tel : (022) 2385 6339 / 2386 9976, Fax : (022) 2386 9976
 Email : niralimumbai@pragationline.com

➤ DISTRIBUTION BRANCHES

JALGAON

Nirali Prakashan : 34, V. V. Golani Market, Navi Peth, Jalgaon 425001, Maharashtra,
 Tel : (0257) 222 0395, Mob : 94234 91860; Email : niralijalgaon@pragationline.com

KOLHAPUR

Nirali Prakashan : New Mahadvar Road, Kedar Plaza, 1st Floor Opp. IDBI Bank, Kolhapur 416 012
 Maharashtra. Mob : 9850046155; Email : niralikolhapur@pragationline.com

NAGPUR

Nirali Prakashan : Above Maratha Mandir, Shop No. 3, First Floor,
 Rani Jhanshi Square, Sitabuldi, Nagpur 440012, Maharashtra
 Tel : (0712) 254 7129; Email : niralinagpur@pragationline.com

DELHI

Nirali Prakashan : 4593/15, Basement, Agarwal Lane, Ansari Road, Daryaganj
 Near Times of India Building, New Delhi 110002 Mob : 08505972553
 Email : niralidelhi@pragationline.com

BENGALURU

Nirali Prakashan : Maitri Ground Floor, Jaya Apartments, No. 99, 6th Cross, 6th Main,
 Malleswaram, Bengaluru 560003, Karnataka; Mob : 9449043034
 Email : niralibangalore@pragationline.com

Other Branches : Hyderabad, Chennai

Note : Every possible effort has been made to avoid errors or omissions in this book. In spite of this, errors may have crept in. Any type of error or mistake so noted, and shall be brought to our notice, shall be taken care of in the next edition. It is notified that neither the publisher, nor the author or book seller shall be responsible for any damage or loss of action to any one of any kind, in any manner, therefrom. The reader must cross check all the facts and contents with original Government notification or publications.

niralipune@pragationline.com | www.pragationline.com

Also find us on  www.facebook.com/niralibooks



Principal

Tujaram Chaturchand College
 Baramati

Contents ...

1. Introduction to RDBMS	1.1 - 1.25
2. PL/SQL	2.1 - 2.130
3. Transaction Management	3.1 - 3.38
4. Concurrency Control and Recovery System	4.1 - 4.61




Principal
Tuljaram Chaturchand College
Baramati

● SALIENT FEATURES OF THE BOOK ●

- Most Recommended and Useful Text Books for B.B.A. (Computer Application) Semester-II with CBCS Pattern
- As Per Latest Syllabus of SPPU
- Carefully Written, for Best of the Inputs for Graduate Students
- Well Suited for the General referencing for any other courses
- All topics covered with variety of programs

● BEST COVERAGE ON ●

This book on "RELATIONAL DATABASE " covers the following topics:

- Introduction to RDBMS
- PL/SQL
- Transaction Management
- Cocurrency Control and Recovery System

● OUR MOST RECOMMENDED TEXT BOOKS FOR B.B.A.(C.A.) : SEMESTER-II ●

- Organizational Behavior And Human Resource Management : Gauri Girish Jadhav
- Financial Accounting : Dr. Suhas Mahajan, Dr. Mahesh Kulkarni
- Business Mathematics : A. V. Rayarikar, Dr. P. G. Dixit
- Relational Database : Dr. Ms. Manisha Bharambe, Abhijeet Mankar
- Web Technology (HTML-JSS-CSS) : Bhupesh Taunk, Aniket Nagane

● BOOKS AVAILABLE AT ●

PRAGATI BOOK CENTER - Email: pbcpune@pragationline.com

- 157 Budhwar Peth, Opp. Ratan Talkies, Next To Balaji Mandir, Pune 411002 • **Mobile** : 9657703148
- 676/B Budhwar Peth, Opp. Jogeshwari Mandir, Pune 411002
Tel : (020) 2448 7459 • **Mobile** : 9657703147 / 9657703149
- 152 Budhwar Peth, Near Jogeshwari Mandir, Pune 411002
Mobile : 8087881795
- 28/A Budhwar Peth, Amber Chambers, Appa Balwant Chowk, Pune 411002 • **Tel** : (020) 6628 1669 • **Mobile** : 9657703142

PRAGATI BOOK CORNER - Email: niralimumbai@pragationline.com

- Indira Niwas, 111 - A, Bhavani Shankar Road, Dadar (W), Mumbai 400028.
Tel: (022) 2422 3526/6662 5254



niralipune@pragationline.com | www.pragationline.com

Also find us on  www.facebook.com/niralibooks

 @nirali.prakashan




Principal
Tuljaram Chaturchand College
Baramati