

# Shri G.P.M. Degree College

Degree College : Affiliated to University of Mumbai.

Junior College: Recognized by Maharashtra State Board of Secondary & Higher Secondary Education Pune.

(Committed to Excellence in Education)

Course : B.Sc. (CS) BOOKLIST : 2023-24

	Semester : I					
Sr. No.	Subject Name / Title of the Book	Publication	Notebook	Reference Book		
1	Digital System & Architecture	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>William Stallings (2010), Computer Organization and Architecture- designing for performance, 8th edition, Prentice Hall, New Jersy.</li> <li>Anrew S. Tanenbaum (2006), Structured Computer Organization, 5th edition, Pearson Education Inc,</li> </ol>		
2	Introduction to Programming With Python	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018</li> <li>Python: The Complete Reference, Martin C. Brown, McGraw</li> </ol>		
3	Linux Operating System	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Linux: Complete Reference", Richard Petersen, 6th Edition, Tata McGraw-Hill</li> <li>Beginning Linux Programming", Neil Mathew, 4th Edition, Wiley Publishing, 2008.</li> </ol>		
4	Open Source Technology	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Open Source for the Enterprise", Dan Woods, Gautam Guliani, O "Reilly Media</li> <li>Docker Project Home: http://www.docker.com3.</li> </ol>		
5	Discrete Mathematics	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>"Discrete Mathematics: Semyour Lipschutz, Marc Lipson, Schaum "s out lines, McGraw-Hill Inc. 3 Edition"</li> <li>Data Structures Seymour Lipschutz, Schaum"s out lines, McGraw-Hill Inc. 2017</li> <li>Discrete Mathematics and Its Applications, Seventh Edition by Kenneth H. Rosen, McGraw Hill Education (India) Private Limited. (2011)</li> <li>Norman L. Biggs, Discrete Mathematics, Revised Edition, Clarendon Press, Oxford 1989.</li> </ol>		
6	Descriptive Statistics	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Sarma, K. V. S. (2001). Statistics Made it Simple: Do it yourself on PC. Prentce Hall of India, New Delhi.</li> <li>Schaum"s Outline Of Theory And Problems of Beginning Statistics, Larry J. Stephens, Schaum"s Outline Series Mcgraw-Hill</li> </ol>		
7	Soft Skill Development	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Cornerstone: Developing Soft Skills, Sherfield, Pearson India</li> <li>Business Communication, Shalini Kalia, Shailja Agrawal, Wiley India</li> </ol>		

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

# **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java

Semester : II					
Sr. No.	Subject Name / Title of the Book	Publication	Notebook	Reference Book	
1	Design and Analysis of Algorithms	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Introduction to the Design and Analysis of Algorithms", Anany Levitin, Pearson, 3rd Edition, 2011</li> <li>Design and Analysis of Algorithms", S. Sridhar, Oxford University Press, 2014.</li> </ol>	
2	Advanced Python Programming	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018</li> <li>Python: The Complete Reference, Martin C. Brown, McGraw Hill, 2018</li> </ol>	
3	Introduction to OOPs using C++	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Mastering C++ by Venugopal, Publisher: McGraw-Hill Education, 2017</li> <li>Let Us C++ by Kanetkar Yashwant, Publisher: BPB Publications, 2020</li> </ol>	
4	Database Systems	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Database System Concepts", Abraham         Silberschatz, Henry F. Korth, S. Sudarshan,         McGraw Hill, 2017</li> <li>MySQL: The Complete Reference", Vikram         Vaswani, McGraw Hill, 2017</li> </ol>	
5	Calculas	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Calculus and analytic geometry (9th edition):         George B Thomas, Ross L Finney, Addison         Wesley, 1995</li> <li>Calculus: Early Transcendentals (8th Edition):         James Stewart, Brooks Cole, 2015</li> </ol>	
6	Statistical Methods	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Mood, A. M. and Graybill, F. A. and Boes D.C. (1974). Introduction to the Theory of Statistics, Ed. 3, McGraw Hill Book Company.</li> <li>Hoel P. G. (1971). Introduction to Mathematical Statistics, John Wiley and Sons, New York.</li> </ol>	
7	E-Commerce & Digital Marketing	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Hoel P. G. (1971). Introduction to Mathematical Statistics, John Wiley and Sons, New York.</li> <li>Fundamentals of Digital Marketing, Punit Singh Bhatia, Pearson, 2nd Edition</li> </ol>	

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

#### **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java

	Semester : III				
Sr. No.	Subject Name / Title of the Book	Notebook	Reference Book		
1	Principles of Operating Systems	1 Notebook, A4 size, 196 pages	<ol> <li>Achyut S. Godbole, Atul Kahate, Operating Systems, Tata McGraw Hill</li> <li>Naresh Chauhan, Principles of Operating Systems, Oxford Press</li> </ol>		
2	Linear Algebra	1 Notebook, A4 size, 196 pages	<ol> <li>Linear Algebra and Probability for Computer Science Applications, Ernest Davis, A K Peters/CRC Press (2012)."</li> <li>Linear Algebra and Its Applications, Gilbert Strang, Cengage Learning, 4th Edition (2007)</li> </ol>		
3	Data Structures	1 Notebook, A4 size, 196 pages	<ol> <li>An Introduction Jean-Paul Structure with Applications, Jean-Paul Tremblay and Paul Sorenson, Tata MacGraw Hill</li> <li>Data structure and Algorithm Analysis in C, Weiss, Mark Allen, Addison Wesley</li> </ol>		
4	Advanced Database Concepts	1 Notebook, A4 size, 196 pages	<ol> <li>Ramez Elmasri &amp; Shamkant B. Navathe, Fundamentals of Database Systems, Pearson Education</li> <li>Robert Sheldon, Geoff Moes, Begning MySQL, Wrox Press.</li> </ol>		
5	Java based Application Development	1 Notebook, A4 size, 196 pages	<ol> <li>E. Balagurusamy, Programming with Java, Tata McGraw-Hill Education India, 2014</li> <li>Programming in JAVA, 2nd Ed, Sachin Malhotra &amp; Saurabh Choudhary, Oxford Press</li> </ol>		
6	Web Technologies	1 Notebook, A4 size, 196 pages	<ol> <li>HTML, XHTML, and CSS Bible Fifth Edition, Steven M. Schafer, WILEY</li> <li>PHP, MySQL, JavaScript &amp; HTML5 All-in-one for Dummies, Steve Suehring, Janet Valade Wiley</li> </ol>		
7	Green Technologies	1 Notebook, A4 size, 196 pages	<ol> <li>Green IT, Toby Velte, Anthony Velte, Robert Elsenpeter, Toby Velte, Anthony Velte, RobertElsenpeter</li> <li>Green Data Center: Steps for the Journey, Alvin Galea, Michael, SchaeDistributorsbers, ShroffPublishers and Distributors</li> </ol>		

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

#### **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java

	Semester : IV				
Sr. No.	Subject Name / Title of the Book	Notebook	Reference Book		
1	Theory of Computation	1 Notebook, A4 size, 196 pages	<ol> <li>Theory of Computation, Kavi Mahesh, Wiley India</li> <li>Elements of The Theory of Computation, Lewis, Papadimitriou, PHI</li> </ol>		
2	Computer Networks	1 Notebook, A4 size, 196 pages	Computer Network, Bhushan Trivedi, Oxford University Press     Data and Computer Communication, William Stallings, PHI		
3	Software Engineering	1 Notebook, A4 size, 196 pages	<ol> <li>Software Engineering: Principles and Practices", Deepak Jain, OXFORD University Press,</li> <li>Software Engineering: Principles and Practices", Deepak Jain, OXFORD University Press,</li> </ol>		
4	IoT Technologies	1 Notebook, A4 size, 196 pages	<ol> <li>Abusing the Internet of Things, Nitesh Dhanjani, O'Reilly</li> <li>Learning Internet of Things, Peter Waher, Packt Publishing(2015)</li> </ol>		
5	Android Application Development	1 Notebook, A4 size, 196 pages	<ol> <li>Head First Android Development: A Learner's Guide to Building Android Apps with Kotlin Dawn Griffiths, 3rd Edition, O'Reilly Media, 2021</li> <li>"Beginning Android 4 Application Development", Wei-Meng Lee, March 2012, WROX.</li> </ol>		
6	Advanced Application Development	1 Notebook, A4 size, 196 pages	<ol> <li>Full Stack Javascript Development with Mean - MongoDB, Express, AngularJS, and Node.JS by Adam Bretz, Colin J Ihrig, Shroff/Site Point, 2015</li> <li>Practical Flutter by Zammetti Frank, Apress, 2019</li> </ol>		
7	Research Methodology	1 Notebook, A4 size, 196 pages	<ol> <li>Research Methodology: Methods and Techniques, Dr. R. K. Jain, , Fifth Edition, VEI, 2021</li> <li>Research Methodology, R. Panneerselvam, Second Edition, PHI, 2014</li> </ol>		

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

## **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java

	Semester : V					
Sr. No.	Subject Name/ Title of the Book	Publication	Notebook	Reference Book		
1	Linux Server Administration	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Mastering Ubuntu Server, Jay LaCroix, PACKT Publisher, 2016</li> <li>Linux Administration: A Beginner's Guide, Wale Soyinka, Seventh Edition, McGraw-Hill Education, 2016</li> </ol>		
2	Software Testing & Quality Assurance	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Software engineering: An Engineering approach, J.F. Peters, W. Pedrycz, John Wiley,2004"</li> <li>Software Testing and Quality Assurance Theory and Practice, Kshirsagar Naik, Priyadarshi Tripathy, John Wiley &amp; Sons, Inc., Publication, 2008</li> </ol>		
3	Information & Network Security	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Cryptography and Network Security, Atul Kahate, Tata McGraw-Hill, 2013.</li> <li>Cryptography and Network, Behrouz A Fourouzan, Debdeep Mukhopadhyay, 2nd Edition, TMH, 2011</li> </ol>		
4	Web Services	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Leonard Richardson and Sam Ruby, REST ful Web Services, O'Reilly, 2007</li> <li>The Java EE 6Tutorial, Oracle, 2013</li> </ol>		
5	Game Programming	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Mathematics for Computer Graphics, John Vince, Springer-Verlag London, 5th Edition, 2017</li> <li>Mathematics for 3D Game Programming and Computer Graphic, Eric Lengyel, Delmar</li> </ol>		

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

## **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java

	Semester : VI						
Sr. No.	Subject Name/ Title of the Book	Publication	Notebook	Reference Book			
1	Wireless Sensor Networks and Mobile Communication	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Fundamentals of Wireless Sensor Networks, Theory and Practice, Waltenegus Dargie, Christian Poellabauer, Wiley Series on wireless Communication and Mobile Computing, 2011.</li> <li>Networking Wireless Sensors, Bhaskar Krishnamachari, Cambridge University Press, 2005.</li> </ol>			
2	Cyber Forensic	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Guide to computer forensics and investigations, Bill Nelson, Amelia Philips and Christopher Steuart, course technology,5th Edition,2015"</li> <li>Incident Response and computer forensics, Kevin Mandia, Chris Prosise, Tata McGrawHill, 2nd Edition, 2003</li> </ol>			
3	Information Retrieval	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Information Retrieval Implementing and Evaluating Search Engines, Stefan Büttcher, Charles L. A. Clarke and Gordon V. Cormack, The MIT Press; Reprint edition (February 12, 2016)</li> <li>Search Engines: Information Retrieval in Practice, Bruce Croft, Donald Metzler and Trevor Strohman, 1st Edition, Pearson, 2009."</li> </ol>			
4	Digital Image Processing	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Digital Image Processing 3rd Edition, Rafael C Gonzalez, Richard E Woods, Pearson, 2008</li> <li>Scilab Textbook Companion for Digital Image Processing, S. Jayaraman, S. Esakkirajan And T. Veerakumar, 2016_(https://scilab.in/textbook_companion/generate_book/125)</li> </ol>			
5	Ethical Hacking	Tech knowledge	1 Notebook, A4 size, 196 pages	<ol> <li>Certified Ethical Hacker Study Guide v9, Sean-Philip Oriyano, Sybex; Study Guide Edition, 2016</li> <li>Certified Ethical Hacker: Michael Gregg, Pearson Education, 1st Edition, 2013</li> </ol>			

1. The student can purchase the Pvt. Publication Textbooks from the below address also under 50% Cash Back Policy\*.

The Book Shop - Books Emporium

Address - Opp. Chinai College, Old Nagardas Road, Andheri East. Mumbai - 400 069

- \* The refund of 50% of the cost of the books in next year is sole activity/responsibility of the book shop 'Books Emporium' under its terms and conditions. The college has no responsibility for the same under any circumstances.
- 2. Dear student Practical-Work has immense value for your academic excellence in computer field. You should have a Computer System/Laptop with below configuration with you at home.

## **Laptop Configuration**

- 1. Processor (CPU): Intel Core i3
- 2. Operating System: Microsoft Windows 10 Professional x 64bit
- 3. Memory: 8 GB RAM
- 4. Storage: 500 GB internal storage drive
- 5. Monitor/Display: 14" LCD monitor, resolution of 1600 x 900 or better
- 6. Network Adapter: 802.11ac 2.4/5 GHz wireless adapter
- 7. Internal or external Webcam, Headphones

- 1. Visual Studio
- 2. Python 3.10.6
- 3. MySQL Workbench
- 4. Anaconda / Google Colab / Kaggle notebook
- 5. Eclipse ide for Java