



# 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 : 2022-23

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	1. William Stallings (2010), Computer Organization and Architecture- designing for performance, 8th edition, Prentice Hall, New Jersey. 2. Anrew S. Tanenbaum (2006), Structured Computer Organization, 5th edition, Pearson Education Inc,
2	Introduction to Programming With Python	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018 2. Python: The Complete Reference, Martin C. Brown, McGraw
3	Linux Operating System	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Linux: Complete Reference”, Richard Petersen, 6th Edition, Tata McGraw-Hill 2. Beginning Linux Programming”, Neil Mathew, 4th Edition, Wiley Publishing, 2008.
4	Open Source Technology	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Open Source for the Enterprise”, Dan Woods, Gautam Guliani, O “Reilly Media 2. Docker Project Home: <a href="http://www.docker.com3">http://www.docker.com3</a> .
5	Discrete Mathematics	Tech knowledge	1 Notebook, A4 size, 196 pages	1. "Discrete Mathematics: Semyour Lipschutz, Marc Lipson, Schaum “s out lines, McGraw- Hill Inc. 3 Edition" 2. Data Structures Seymour Lipschutz, Schaum“s out lines, McGraw- Hill Inc. 2017 3. Discrete Mathematics and Its Applications, Seventh Edition by Kenneth H. Rosen, McGraw Hill Education (India) Private Limited. (2011) 4. Norman L. Biggs, Discrete Mathematics, Revised Edition, Clarendon Press, Oxford 1989.
6	Descriptive Statistics	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Sarma, K. V. S. (2001). Statistics Made it Simple: Do it yourself on PC. Prentce Hall of India, New Delhi. 2. Schaum“s Outline Of Theory And Problems of Beginning Statistics, Larry J. Stephens, Schaum“s Outline Series Mcgraw-Hill
7	Soft Skill Development	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Cornerstone: Developing Soft Skills, Sherfield, Pearson India 2. Business Communication, Shalini Kalia, Shailja Agrawal, Wiley India

### **Kindly Note -**

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

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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

### **Softwares**

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	1. Introduction to the Design and Analysis of Algorithms”, Anany Levitin, Pearson, 3rd Edition, 2011 2. Design and Analysis of Algorithms”, S. Sridhar, Oxford University Press, 2014.
2	Advanced Python Programming	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018 2. Python: The Complete Reference, Martin C. Brown, McGraw Hill, 2018
3	Introduction to OOPs using C++	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Mastering C++ by Venugopal, Publisher: McGraw-Hill Education, 2017 2. Let Us C++ by Kanetkar Yashwant, Publisher: BPB Publications, 2020
4	Database Systems	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Database System Concepts”, Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw Hill, 2017 2. MySQL: The Complete Reference”, Vikram Vaswani , McGraw Hill, 2017
5	Calculus	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Calculus and analytic geometry (9th edition): George B Thomas, Ross L Finney, Addison Wesley, 1995 2. Calculus: Early Transcendentals (8th Edition): James Stewart, Brooks Cole, 2015
6	Statistical Methods	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Mood, A. M. and Graybill, F. A. and Boes D.C. (1974). Introduction to the Theory of Statistics, Ed. 3, McGraw Hill Book Company. 2. Hoel P. G. (1971). Introduction to Mathematical Statistics, John Wiley and Sons, New York.
7	E-Commerce & Digital Marketing	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Hoel P. G. (1971). Introduction to Mathematical Statistics, John Wiley and Sons, New York. 2. Fundamentals of Digital Marketing, Punit Singh Bhatia, Pearson, 2nd Edition

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- 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	1. Achyut S. Godbole, Atul Kahate, Operating Systems, Tata McGraw Hill 2. Naresh Chauhan, Principles of Operating Systems, Oxford Press
2	Linear Algebra	1 Notebook, A4 size, 196 pages	1. Linear Algebra and Probability for Computer Science Applications, Ernest Davis, A K Peters/CRC Press (2012)." 2. Linear Algebra and Its Applications, Gilbert Strang, Cengage Learning, 4th Edition (2007)
3	Data Structures	1 Notebook, A4 size, 196 pages	1. An Introduction Jean-Paul Structure with Applications, Jean-Paul Tremblay and Paul Sorenson, Tata MacGraw Hill 2. Data structure and Algorithm Analysis in C, Weiss, Mark Allen, Addison Wesley
4	Advanced Database Concepts	1 Notebook, A4 size, 196 pages	1. Ramez Elmasri & Shamkant B. Navathe, Fundamentals of Database Systems, Pearson Education 2. Robert Sheldon, Geoff Moes, Begning MySQL, Wrox Press.
5	Java based Application Development	1 Notebook, A4 size, 196 pages	1. E. Balagurusamy, Programming with Java, Tata McGraw-Hill Education India, 2014 2. Programming in JAVA, 2nd Ed, Sachin Malhotra & Saurabh Choudhary, Oxford Press
6	Web Technologies	1 Notebook, A4 size, 196 pages	1. HTML, XHTML, and CSS Bible Fifth Edition, Steven M. Schafer, WILEY 2. PHP, MySQL, JavaScript & HTML5 All-in-one for Dummies, Steve Suehring, Janet Valade Wiley
7	Green Technologies	1 Notebook, A4 size, 196 pages	1. Green IT, Toby Velte, Anthony Velte, Robert Elsenpeter, Toby Velte, Anthony Velte, RobertElsenpeter 2. Green Data Center: Steps for the Journey, Alvin Galea, Michael, SchaeDistributorsbers, ShroffPublishers and Distributors

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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	1. Theory of Computation, Kavi Mahesh, Wiley India 2. Elements of The Theory of Computation, Lewis, Papadimitriou, PHI
2	Computer Networks	1 Notebook, A4 size, 196 pages	1. Computer Network, Bhushan Trivedi, Oxford University Press 2. Data and Computer Communication, William Stallings, PHI
3	Software Engineering	1 Notebook, A4 size, 196 pages	1. Software Engineering: Principles and Practices”, Deepak Jain, OXFORD University Press, 2. Software Engineering: Principles and Practices”, Deepak Jain, OXFORD University Press,
4	IoT Technologies	1 Notebook, A4 size, 196 pages	1. Abusing the Internet of Things, Nitesh Dhanjani, O’Reilly 2. Learning Internet of Things, Peter Waher, Packt Publishing(2015)
5	Android Application Development	1 Notebook, A4 size, 196 pages	1. Head First Android Development: A Learner's Guide to Building Android Apps with Kotlin Dawn Griffiths, 3rd Edition, O'Reilly Media, 2021 2. “Beginning Android 4 Application Development”, Wei-Meng Lee, March 2012, WROX.
6	Advanced Application Development	1 Notebook, A4 size, 196 pages	1. Full Stack Javascript Development with Mean - MongoDB, Express, AngularJS, and Node.JS by Adam Bretz, Colin J Ihrig, Shroff/Site Point, 2015 2. Practical Flutter by Zammetti Frank, Apress, 2019
7	Research Methodology	1 Notebook, A4 size, 196 pages	1. Research Methodology: Methods and Techniques, Dr. R. K. Jain, , Fifth Edition, VEI, 2021 2. Research Methodology, R. Panneerselvam, Second Edition, PHI, 2014

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**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	1. Mastering Ubuntu Server, Jay LaCroix, PACKT Publisher, 2016 2. Linux Administration: A Beginner's Guide, Wale Soyinka, Seventh Edition, McGraw-Hill Education, 2016
2	Software Testing & Quality Assurance	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Software engineering: An Engineering approach, J.F. Peters, W. Pedrycz, John Wiley, 2004" 2. Software Testing and Quality Assurance Theory and Practice, Kshirsagar Naik, Priyadarshi Tripathy, John Wiley & Sons, Inc., Publication, 2008
3	Information & Network Security	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Cryptography and Network Security, Atul Kahate, Tata McGraw-Hill, 2013. 2. Cryptography and Network, Behrouz A Fourouzan, Debdeep Mukhopadhyay, 2nd Edition, TMH, 2011
4	Web Services	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Leonard Richardson and Sam Ruby, RESTful Web Services, O'Reilly, 2007 2. The Java EE 6 Tutorial, Oracle, 2013
5	Game Programming	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Mathematics for Computer Graphics, John Vince, Springer-Verlag London, 5th Edition, 2017 2. Mathematics for 3D Game Programming and Computer Graphic, Eric Lengyel, Delmar

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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	1. Fundamentals of Wireless Sensor Networks, Theory and Practice, Walteneagus Dargie, Christian Poellabauer, Wiley Series on wireless Communication and Mobile Computing, 2011. 2. Networking Wireless Sensors, Bhaskar Krishnamachari , Cambridge University Press, 2005.
2	Cyber Forensic	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Guide to computer forensics and investigations, Bill Nelson, Amelia Philips and Christopher Steuart, course technology,5th Edition,2015" 2. Incident Response and computer forensics, Kevin Mandia, Chris Prosis, Tata McGrawHill, 2nd Edition, 2003
3	Information Retrieval	Tech knowledge	1 Notebook, A4 size, 196 pages	1.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) 2.Search Engines: Information Retrieval in Practice, Bruce Croft, Donald Metzler and Trevor Strohman, 1st Edition, Pearson, 2009.”
4	Digital Image Processing	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Digital Image Processing 3rd Edition, Rafael C Gonzalez, Richard E Woods, Pearson, 2008 2. Scilab Textbook Companion for Digital Image Processing, S. Jayaraman, S. Esakkirajan And T. Veerakumar,2016_( <a href="https://scilab.in/textbook_companion/generate_book/125">https://scilab.in/textbook_companion/generate_book/125</a> )
5	Ethical Hacking	Tech knowledge	1 Notebook, A4 size, 196 pages	1. Certified Ethical Hacker Study Guide v9, Sean-Philip Oriyano, Sybex; Study Guide Edition, 2016 2. Certified Ethical Hacker: Michael Gregg, Pearson Education,1st Edition, 2013

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