Sheth NKTT College of Commerce and Sheth JTT College of Arts, Thane (Autonomous)
F. Y. B. Sc(Computer Application) 2025-26

	Semester I Subjects	Credits		Semester II Subjects	Credits
Major			**BCO201**	1. Object Oriented Programming with C++	2
BCF101	Fundamentals of Computer	2	**BCD202**	2. Database Management System	2
BCC102	Programming with C	2			
BCFCP103	Fundamentals of Computer and Programming with C Practical	2	**BCODP203**	Object Oriented Programming with C++ and Database Management System Practical	2
Minor		-	**BCB204**	Business Statistics	2
BCA104	OE 1: Fundamentals of Accounting	4	**BCF205**	OE1: Financial Market	4
BCW105	VSC: Web Design	2	**BCF206**	1. VSC: Digital Computer Fundamental	2
BCWP106	SEC: Web Design Practical	2	**BCFP207**	2. SEC: Digital Computer Fundamental Practical	2
BCC107	AEC: Corporate communication-I	2	**BCC208**	1. AEC: Corporate communication-II	2
BCD108	VEC: Green Technology - I	2	**BCG209**	2. VEC: Green Technology-II	2
BCE109	IKS: Evolution of IT	2			
BCS1010 **BCL1010** **BCP1010**	CC: NSS/ Sports/ Cultural/ Yoga	2	**BCS2010** **BCL2010** **BCP2010**	1. CC : NSS/ Sports/ Cultural/ Yoga	2
	Total	**22**			**22**

Dr. Yogeshwari Patil
Department Coordinator

Prof. Heena Chande
NEP Coordinator

Dr. Dilip Patil
Principal

Sheth T. J. Education Society's
Sheth N.K.T.T College of Commerce and
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Programme Name: **B.Sc (Computer Application)**	**Semester: I**
Course Category/Vertical: Major	
Name of the Dept: **Science and Technology**	
Course Title: Fundamentals of Computer	
Course Code: **BCF101**	Course Level:4.5
Type: Theory	
Course Credit: 2 credits	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Course Objectives(CO): 1. Describe the fundamental of Computer and Operating System. 2. To gain a comprehensive understanding of how computers work, including their hardware, software, and basic principles of operation. This knowledge forms the foundation for further exploration and specialization in various areas of computer science and technology.	
Course Outcomes (OC): OC 1. Acquire the knowledge of fundamentals of Computer and Operating System. OC 2. Develop problem solving skill through algorithms and flowcharts. OC 3. Understand the basics of computer networking and internet	
Description the course:	Understanding the basic components of a computer system, such as the CPU, memory, input/output devices, and storage. and Learning about the software that manages computer hardware and provides services for other software applications.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	**Computer Fundamentals:** History & generation of computer, Block diagram of computer system, Types of computers Definition- Software, Hardware, Compiler, Interpreter, Characteristics & applications of Computer, Data Representation: Introduction to Number system: decimal, binary, octal and hexadecimal, Conversion in Number System, Character representation: ASCII **Operating System** Definition, Need and Function of an operating system, Types of operating system, Comparative study of various operating systems (DOS, Linux and Windows) **Memory Management Concept** Types of Memory Primary– RAM, ROM, PROM, EPROM, Secondary– Magnetic Disk, Hard Disk and CD Definitions and Concept – Paging, Segmentation, Deadlock	15
II	**Networking and Internet** What is Computer network? Types of Networks: LAN, MAN, WAN, Topologies: Star, Tree, Bus, Ring, Mesh, Fully Connected, Wireless Networks, Working of Internet, Use of Internet, Applications of Internet, Study of Web Browsers, Search Engines, Creating an E-mail Account, Sending & Receiving E-mail (with attachment). **Office Automation** Basic Concepts, MS-Word- demonstration of text formatting, tables, shapes, smart-arts, charts, Spreadsheets- Functions- (Aggregate function) , Macros. Presentation Tool Design Slides (using Text, images, charts, clipart), Slide Animation, Template and theme creation	15
	Total Hours	30

References:

1. V.RajaRaman, “Fundamentals of computer” (PHIPublication) ISBN10:8120340116
2. RogerHuntandJohnShelley,Computerandcommonsense”(PHIPublication) ISBN10:013164 6737
3. AndrewS.Tanenbaum, “ComputerNetworks”–FourthEdition. ISBNnumber0130661023
4. Hurwitz Judith S. and Daniel Kirsch, “Cloud Computing for Dummies”.
5. GodboleAchyut and KahateAtul, “Web Technologies: TCP/IP, Web/ Java Programming, and Cloud Computing, ”, 3e Tata McGraw-Hill Education ISBN: 9332900914, 9789332900912.

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Programme Name: **B.Sc(Computer Application)**	**Semester : I**
Course Category: Major	
Name of the Dept: **Science and Technology**	
Course Title: Programming with C	
Course Code: **BCC102**	Course Level: 4.5
Type: Theory	
Course Credit: 2	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Course Objectives: 1. To develop the logical ability and basic concepts to be cleared using suitable examples of the students 2. To handle the errors and find suitable solution.	
Course Outcomes: OC1. Learn the basic principles of programming and develop of logic using algorithm and flowchart. OC2. Acquire the information about data types. OC3. Understanding of input and output functions.	
Description the course:	Explore the foundational principles of programming using the C language in this comprehensive course. From basic syntax to advanced concepts, gain hands-on experience in problem-solving, algorithm development, and code optimization. Build a strong foundation for understanding programming logic, memory management through practical exercises and projects.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	1. Introduction: Algorithms, Structure of C Program. Program Characteristics, Compiler, Linker and preprocessor, pseudo code statements and flowchart symbols, Desirable program characteristics. Compilation and Execution of a Program, C Character Set, identifiers and keywords, data types and sizes , constants and its types, variables, Character and character strings, typedef, typecasting 2. Type of operators: Arithmetic operators, relational and logical operators, Increment and Decrement operators, assignment operators, the conditional operator, Assignment operators and expression, Control Flow: Statements and Blocks, If-Else, Else-If, Switch, Loops- While and For Loops Do-while, Break and Continue, Goto and Labels	15
II	1. Functions and Program Structure: Basics of functions. User defined and Library functions, Function parameters, Return values, Recursion, Scope Rules, Standard Input and Output, Formatted Output-printf() and Formatted Input- scanf(), Line Input and Output 2. Pointer and Arrays: Pointers and Functions, Multidimensional Array, Command-line Arguments, Pointers to Functions 3. Structures: Basics of structures, Structures and Functions, Arrays of Structures, Unions, File management in C: Defining and Opening file, Closing a file, Input / Output operations on file, Error handling in C, Random access to files	15
	Total Hours	30

References:

1. Programming Language, Brian W.Kernighan and Denis M.Ritchie, PHI 2nd Edition 1998
2. Mastering C K R, Venugopal, Tata McGrawHill , 6th Edition, 2007
3. Programming with C , K R Venugopal, Tata McGrawHill, 6th Edition 2007
4. Let us C, Yashwant P. Kanetkar, BPB Publication
5. Programming in ANSI C, E.Balagurusamy, Tata McGrawHill, 7th Edition , 1982

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Programme Name: **B.Sc(Computer Application)**	**Semester: I**
Course Category/Vertical: Major	
Name of the Dept: **Science and Technology**	
Course Title: Fundamentals of Computer and Programming with C Practical	
Course Code: **BCFCP103**	Course Level: 4.5
Type: Practical	
Course Credit: 2 credits	
Hours Allotted: 60 Hours	
Marks Allotted: 50 Marks	
Course Objectives(CO): 1. Describe the basic DOS Command 2. Describe the basic concept of Office Automation 3. To develop the logic of the student. 4. Describe loops and Practical use of operators.	
Course Outcomes (OC): (List the course outcomes) OC1. Students can able to understand the installation of operating system and understand basic DOS command, and different browser. OC2. Student understand different platforms, Internet, mails and can also learn text formatting and table formatting and capable to design power point presentation, tables, shapes, smart arts and charts OC3. Develop applications. OC4. Understand the differences between syntax errors, runtime errors, and logic errors	

Sr. No	Content	Hours
1	1. Installation of Operating System (Linux and Windows). 2. Run different commands of MS DOS – CD, DIR, COPY, REN, CLS, MD, RD, etc. 3. Study different web Browsers- Internet Explorer, Fire fox, downloading of files 4. Connect the Internet- open any website of your choice and download the WebPages. 5. Study different platforms – Hardware, Software, Server and Cloud. 6. Create your E-Mail ID on any free E-Mail Server. 7. Login through your E-Mail ID and do the following: a. Read your mail b. Compose a new Mail c. Send the Mail to one person d. Send the same Mail to various persons e. Forward the Mail f. Delete the Mail g. Send file as attachment 8. Create and demonstrate of text formatting, tables, shapes, smart-arts, charts. 9. Create a spreadsheet which will demonstrate use of aggregate function. 10. Create and demonstrate power point presentation with animation	30
2	1. a. Write an algorithm and draw flowchart for Area of circle. b. Write an algorithm and draw flowchart to print the given no. is even or odd. c. Write an algorithm and draw flowchart to print 1 to 10 numbers. d. Write an algorithm and draw flowchart for sum of 1 to 5 numbers. 2. a. Write a program using while loop to reverse the digits of a number. b. Write a program to calculate the factorial of a given number. c. Write a program to find the roots of quadratic equation. d. Write a program to print the Fibonacci series.	30

3. a. Write a program in C to check entered character vowel or consonant

   b. Write a program to C program to print day name of week using switch-case.

   c. Write a program to read three values from keyboard and print out the largest of them without using if statement.

4. a. Write a program to print the pattern of asterisks as shown below

   *

   * *

   * * *

   * * * *

   b. Write a program to print the pattern of asterisks as shown below :

   * * * *

   * * *

   * *

   *

   c. Write a program to print Floyd's Triangle.

5. a. Write a program to print area of square using function.

   b. Write a program using recursive function.

   c. Write a program to square root, abs() value using function.

   d. Write a program using goto statement.

6. a. Write a program to print rollno and names of 10 students using array. b. Write a program to read a matrix of size m*n.

   c. Write a program to sort the elements of array in ascending or descending order.

7. a. Write a program to extract the portion of a character string and print the extracted part.

   b. Write a program to find the given string is palindrome or not.

   c. Write a program to using strlen(), strcmp() function.

8. a. Write a program to display the values using different data types and its address using pointer.

   b. Write a program to perform addition and subtraction using pointer.

9. a. Write a program to copy the contents of the file from one file into other.

	b. Write a program to print the structure using • Title • Author • Subject • Book ID Print the details of two students. 10. Create a mini project on “Bank management system” . The program should be menu driven	
	Total Hours	60

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Programme Name: **B.Sc(Computer Application)**	**Semester:I**
Course Category: Open Elective	
Name of the Dept: **Science and Technology**	
Course Title: Fundamentals of Accounting	
Course Code: **BCA104**	Course Level: 4.5
Type: Theory	
Course Credit: 4	
Hours Allotted: 60 Hours	
Marks Allotted: 100 Marks	
Course Objectives: 1. To understand fundamental concepts of financial accounting. 2. To understand the basics of cost accounting. 3. To maintain and record financial transactions in books of accounts. 4. To prepare final accounts of sole proprietary business.	
Course Outcomes: OC1 - Understand The Principles and of Financial and Cost Accounting OC2 - Explore about maintenance and Preparation of Final Accountancy	
Description the course:	Participants will Learn the fundamentals of Accounting, types, Principle and structures, and functions, enabling them to clear, concise, and efficient Knowledge in account maintenance. Through hands-on exercises and projects, students will develop Interpretation skills and gain confidence in solving real-Accounting problems and Preparation of books of accountancy .it enable them to understand Inventory Valuation.

Unit No.	Content	Hours
I	**Unit 1 – Introduction to Accounting :(Theory only)** 1.1 Meaning and definition of Financial Accounting. 1.2 Objectives and scope of Financial Accounting, 1.3 Meaning and use of Book Keeping 1.4 Accounting v/s Book Keeping 1.5 Advantages and Limitations of Financial Accounting.	15
II	**Unit 2 - Basics of Accounting (Theory only)**	
	2.1 Types of Accounting 2.2 Golden Rules of Accounting. 2.3 Double entry system in Accounting 2.4 Terms used in accounting : Debtors, Creditors, Bill Receivable, Bills Payable, Credit Note ,Debit Note ,Petty Cash ,Contra Entry ,Trade Discount ,Cash Discount, Suspense A/c 2.5 Users of accounting information	15
III	**Unit 3 –Fundamentals of Book Keeping, Stock Valuation & Recording of transactions (Practical Problems)**	
	3.1 Concept and Format of Journal 3.2 Recording of transactions in Journal 3.3 Meaning and Format of Ledger 3.4 Posting of transactions in Ledgers 3.5 Rectification of Errors 3.6 Introduction of Inventory Valuation and its Method (LIFO and Weighted Average Method)	15
IV	**Unit 4 – Preparation of Final Accounts of Sole Proprietorship Business (Practical Problems)**	
	4.1 Meaning, Importance & Objectives of Final Accounts 4.2 Preparation of Trial Balance 4.3 Preparation of Trading A/c., Manufacturing A/c. 4.4. Preparation of Profit & Loss A/c. 4.5 Preparation of Balance Sheet- Adjustments- Outstanding Expenses, Prepaid Expenses, Accrued Incomes, Depreciation	15

References:

1. Introduction to Accountancy by T.S. Gerwal, S.C. Gupta- S.Chand Publication-
2. Financial Accounting by Bhushan Kumar Goyal, H.N.Tiwari- International Book House Pvt.
3. Fundamentals of Accounting by Dr. S.N. Maheshwari, Dr.S.K. Maheshwari- Vikas
4. Accounting for Management by T. Vijaykumar, - (2010) – Tata McGraw Hill

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Programme Name: **B.Sc(Computer Application)**	**Semester:I**
Course Category/Vertical: Vocational Skill Course	
Name of the Dept: **Science and Technology**	
Course Title: **Web Design**	
Course Code: **BCW105**	Course Level: 4.5
Type: Theory	
Course Credit: 2 credits	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Course Objectives (CO): 1. Describe the basic structure of HTML files. 2. To become familiar with the concept of CSS and frames	
Course Outcomes (OC): OC1. Students will able to Acquainted with elements, Tags and basic structure of HTML files. OC2. Students will implement effective use of List and Tables and effective web page navigation. OC3. Students will capable to design web page layout and implement use of style sheet.	
Description the course: .	Through this course learners will explore the core concepts and Technologies including HTML, CSS and Frames. Participants will gain hands on experience in creating Web applications in corporating multimedia content.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	**Introduction to Web** Introduction to Internet, Advantages of Internet, Working of Internet, World Wide Web (WWW), Hypertext Transfer Protocol (HTTP), Universal Resource Locator (URL), Introduction to Web Browser and Web server, Introduction to Web page, Static and Dynamic Web page, **Fundamentals of HTML** Introduction to HTML, Basic structure of HTML document, Formatting Text, Font Tags and Attributes, Headings Tags, Image Tag and Attributes, Background Color and Background Images, Inserting Audio and Video Files, Marquee Tag and Attributes **List, Hyper link and Table** List Tag - Ordered List, Unordered List, Definition List, Introduction to Hyperlink, Internal and External Hyperlink, Image Link, Table Tags & Attributes, Cell Spacing, Cell Padding, Row Span, Col Span	15
II	**Frame, Frameset and Form** Frame, Frameset, Creating Framesets, Target Frameset, Form Tag and Attributes, Form Elements - Textbox, Text Area, List Box, Radio Button, Checkbox, Submit and Reset Button **Introduction to CSS** Basic of CSS, Advantages of CSS, Role of CSS in Web Designing, CSS Structure and Syntax, Internal CSS, Inline CSS, External CSS, Font Properties of CSS **CSS Selectors** Selectors and declarations, Element Selector, Class Selector, ID Selector, Child Selector, Universal Selector, Group Selector	15
	Total Hours	30

References:

3. Textbook of Web Designing By Joel Sklar, Cengage Learning Publication 2009
4. Web designing in Nut Shell (Desktop Quick Reference) by Jennifer Niederst Publication – O'Reilly publication
5. Designing web navigation by James Kalbach Publication – O'Reilly publication
6. Textbook of Web Designing By Joel Sklar, Cengage Learning Publication 2009 ISBN, 1423901940

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Programme Name: **B.Sc(Computer Application)**	**Semester: I**
Course Category/Vertical: Skill Enhancement Course	
Name of the Dept: **Science and Technology**	
Course Title: **Web Design Practical**	
Course Code: **BCWP106**	Course Level:4.5
Type: Practical	
Course Credit: 2 credits	
Hours Allotted: 60 Hours	
Marks Allotted: 50 Marks	
Course Objectives (CO): 1. Course will provide students with an overview of Web Design. 2. Students will learn about topics such HTML Basics, CSS, Multimedia and Frame structure	
Course Outcomes (OC): OC1. Understand the basic of HTML OC2. Design and Styling of Web Pages using HTML elements with CSS, Multimedia and Frames	
Description the course:	Participants will gain hands on experience in creating Web applications in corporating multimedia content.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
	1. Create web page using basic HTML tags. 2. Create web page using Different Formatting tag. 3. Create Web page with different Images. 4. Create web page using Marquee Tag 5. Create a web page using different List tag. 6. Create web page using Anchor Tag (Internal Link and External Link) 7. Create web page to design time table of your college using Table tag. 8. Create web page inserting audio and video files. 9. Design a web page using Frames and Frameset Tag. 10. Design webpage of College Admission Form. 11. Design a web page using Inline and Internal CSS 12. Demonstrate the use of External CSS 13. Create web page to set background color using CSS.	
	Total Hours	60

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<table>
<tr><td colspan="2">Programme Name: B.Sc(Computer Application) Semester: I</td></tr>
<tr><td colspan="2">Course Category/Vertical: Ability Enhancement Course</td></tr>
<tr><td colspan="2">Name of the Dept: Science and Technology</td></tr>
<tr><td colspan="2">Course Title: Corporate Communication – I</td></tr>
<tr><td colspan="2">Course Code: BCC107 Course Level:4.5</td></tr>
<tr><td colspan="2">Type: Theory</td></tr>
<tr><td colspan="2">Course Credit: 2 credits</td></tr>
<tr><td colspan="2">Hours Allotted: 30 Hours</td></tr>
<tr><td colspan="2">Marks Allotted: 50 Marks</td></tr>
<tr><td colspan="2">Course Objectives (CO):
1. To inculcate the knowledge of basic communication skills in learners and make learners aware of how non-verbal communication impacts daily communication.
2. To inculcate effective business writing skills in learners and create awareness about ethics in information</td></tr>
<tr><td colspan="2">Course Outcomes (OC):
OC1: Learners would develop their basic communication skills and gain knowledge of how verbal and non-verbal communication impacts the business world.
OC2: Develop effective business writing skills</td></tr>
<tr><td>Description the course:</td><td>The course introduces learners to the basic concepts of communication required in personal and professional lives. It will assist them in making effective use of both verbal and non-verbal methodologies of communication. The course will inculcate effective writing skills in learners enabling them to overcome the communication challenges they may face in the corporate world. With these skills they can turn out to be communication experts and PR experts as well.</td></tr>
</table>

Syllabus: NEP 2020 w.e.f 2024-25

Sr. No.	Content	Hours
1	**Fundamentals of Technical Communication** **Fundamentals of Technical Communication:** Introduction, The process of communication, Language as tool of communication, levels of communication, The flow of communication, Communication Networks, The importance of technical communication **Barriers to communication**: Definition of Noise, classification of Barriers **Non-verbal Communication**: Introduction, Definition, significance of nonverbal, forms of non-verbal communication, types of non-verbal communication **The Seven Cs of Effective Communication:** Completeness, Conciseness, Consideration, Concreteness, Clarity, Courtesy, Correctness **Meeting and conferences**: Introduction, Purpose of Meeting, planning a meeting, Meeting Process, Leading effective meeting, evaluating meeting, planning conference, teleconferencing. **Group Discussion and team presentation**: Introduction, Benefits of GD, Workplace GD guidelines, Functional and non-functional roles in GD, Improving group performance, Assessment of group discussion, Team presentation. **Email communication**: Introduction, Advantages of email, problems in email communication, Email etiquettes, Techniques of writing Effective Email	15
2	**Business Writing and Visual Aids** **Business writing**: Introduction, Importance of written Business, Five main strategies of writing business messages **Business correspondence**: Business letter writing, common component of Business letter, Strategies for writing body of a letter, Types of Business letter, writing memos. **Business reports and proposal**: What is a report? Steps in writing routine Business report, parts of reports, corporate reports and Business proposals **Careers and Resume**: Introduction to career building, resume format, traditional, electronic and video resumes, sending resume, follow-up letters and online recruitment process. **Creating and Using Visual Aids**: Object, Models, Handouts, Charts and Graphs, Text Visuals, Formatting Computer generated charts, graphs and visuals.	15
	Total Hours	**30**

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Programme Name: **B.Sc(Computer Application)**	**Semester : I**
Course Category/Vertical: Value Education Course	
Name of the Dept: **Science and Technology**	
Course Title: **Green Technology I**	
Course Code: BDG108	Course Level: 4.5
Type: Theory	
Course Credit: 2 credits	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Course Objectives(CO): 1. Understand the concept of Green IT and impact of sustainability of computing applications, regulatory, non regulatory and other influences affecting business. 2. Understand Key sustainability challenges associated with data centers and strategies to make them more environmentally sustainable with in-depth coverage of energy-efficient storage technologies and data storage systems.	
Course Outcomes (OC): OC 1. The learner studies emerging green IT regulations, energy management techniques, laws, standards and regulations related to Green IT. OC 2. Develop knowledge about green data storage and data centers and how the choice of hardware and software can facilitate a more sustainable operation.	
Description the course:	The course introduces the learners to the concept of sustainable approach to IT resource management, focusing on minimizing environmental impact in the context of environmental concerns.The learners could upgrade their current understanding towards Green IT practices, reducing energy consumption and electronic waste, promoting efficient, cost-effective, and environmentally sustainable IT systems.Students would be able to explore new areas of IT professionals with expertise in Green IT.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	**Green IT An Overview** Introduction, Environmental Concerns and Sustainable Development, Environmental Impacts of IT, Green IT, Applying IT for Enhancing Environmental Sustainability, Green IT Standards and Eco-Labelling of IT. **Green Devices and Hardware** : Introduction, Life Cycle of a Device or Hardware, Reuse, Recycle and Dispose, Green Software ,Energy-Saving Software Techniques, **Sustainable Software Development** : Introduction, Current Practices, Sustainable Software, Software Sustainability Attributes and Metrics Sustainable Software Methodology **Regulating Green IT:** Laws, Standards and Protocols: Introduction, Introduction, Nonregulatory Government Initiatives, Industry Associations and Standards Bodies, Green Building Standards, Green Data Centres, Social Movements and Greenpeace	
II	**Green Data Storage**: Introduction, Storage Media Power Characteristics, Energy Management Techniques for Hard Disks, System-Level Energy Management. Green Data Centres : Data Centres and Associated Energy Challenges, Data Centre IT Infrastructure, Data Centre Facility Infrastructure: Implications for Energy Efficiency, IT Infrastructure Management, Green Data Centre Metrics	
	Total Hours	30

References:

1. Green IT Toby Velte, Anthony Velte, & Robert Elsenpete McGraw Hill 2008
2. Harnessing Green It Principles And Practices San Murugesan, G.R. Gangadharan WILEY -
3. Green Data Center: Steps for the Journey Alvin Galea, Michael Schaefer, Mike Ebbers Shroff Publishers And Distributors 2011
4. Green Computing and Green IT Best Practice Jason Harris Emereo
5. Green Computing Tools and Techniques for Saving Energy, Money and Resources Bud E. Smith CRC Press 2014

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Programme Name: **B.Sc(Computer Application)**	**Semester : I**
Course Category: Indian Knowledge System	
Name of the Dept: **B.Sc(Computer Application)**	
Course Title: Evolution of Information Technology	
Course Code: **BCE109**	Course Level:4.5
Type: Theory	
Course Credit: 2	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Course Objectives: 1. Make aware to Basics of Computer and various storage devices 2. Concept of Hardware, Software and Networking devices. 3. To study IT Act 2000	
Course Outcomes: OC1 - Study generations of Computer and basics of Internet and it applications OC2 - Understand various software types and Basics of I.T. Act 2000	
Description the course:	Through this course, learners will embark on a fascinating exploration of the historical milestones, key innovations, and transformative trends that have shaped the IT landscape. From early mechanical computing devices to the advent of the internet, mobile computing, and artificial intelligence, participants will gain valuable insights into how IT has revolutionized communication, commerce, and daily life.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	**Computer Generation and its classification**: Introduction, what is Computer, Characteristics of computer, Evolution of Computer, Block Diagram of a computer, Generations of Computers. **Storage Devices:** Primary Vs Secondary Storage, Data storage & retrieval methods. Primary Storage: RAM ROM, PROM, EPROM, EEPROM. Secondary Storage: Magnetic Tapes, Magnetic Disks. Cartridge tape, hard disks, Floppy disks Optical Disks, Compact Disks, Zip Drive, Flash Drives **Software:** Software and its needs, Types of S/W. System Software: Operating System, Utility Programs Programming Language: Machine Language, Assembly Language, High Level Language, advantages & disadvantages of programming language. Application S/W and its Types	15
II	**Communication:** Introduction, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics, Types of Networks, Topologies, Computer Protocols. **Internet and the World Wide Web:** What is Internet? Evolution of Internet, Internet service providers, Internet and its applications, E-mail, Telnet, FTP, domain name server, Internet address, World Wide Web (WWW): World Wide Web uniform resource locator (URL), Browsers–Internet Explorer, Netscape Navigator, Opera, Firefox, Chrome, Mozilla. **I.T. Act 2000:** Introduction of IT Act 2000, Offences in IT Act 2000, Various provisions of IT Act 2000.	15
	Total Hours	30

References:

1. Fundamentals of Computers V. Rajaraman and Neeharika A. PHI Learning Sixth 2015
2. Data communication and networking Behrouz. Forouzan Tata McGraw Hill 5th edition 2013
3. Cyber law simplified Vivek Sood Tata McGraw Hill

Scheme of Examination

Course with Credit	External Examination	Internal Examination	Total
Credit 4	**60 marks**	**40 marks**	**100 marks**
Credit 2	**30 marks**	**20 marks**	**50 marks**

Internal Examination Structure(Theory)

Internal examination	40 marks	20 marks
Project Presentation/Case Study /Quiz/Group Discussion	10 marks	5 marks
Assignment /Active class Participation/Attendance	10 marks	5 marks
Class test	20 marks	10 marks
Total	40 marks	20 marks

Structure for Class Test

For 10 marks	
Q1. Answer the following (Attempt any 2) **a.** **b.** **c.** **d.**	**10 Marks**

External Examination (For 60 Marks)

Q. No.	External	Marks: 60
Q .1 (From Module 1)	Answer the following questions (Any 3) A B C D E F	15 Marks
Q. 2 (From Module 2)	Answer the following questions (Any 3) A B	15 Marks

	C D E F	
Q. 3 (From Module 3)	Answer the following questions (Any 3) A B C D E F	15 Marks
Q. 4 (From Module 4)	Answer the following questions (Any 3) A B C D E F	15 Marks

External Examination (For 30 Marks)

Q. No.	**External**	**Marks: 30**
Q .1 (From Module 1)	Answer the following questions (Any 3) A B C D E F	15 Marks
Q. 2 (From Module 2)	Answer the following questions (Any 3) A B C D E F	15 Marks

Practical Evaluation Internal: 20 marks

1	Problem Solving	10
2	Lab Work/Performance	5
3	Viva	5

Practical External Exam: 30 marks
A Certified copy journal is essential to appear for the practical examination.

1	Practical Question 1	10
2	Practical Question 1	10
3	Journal	5
4	Viva Voce	5

OR

1	Practical Question 1	20
2	Journal	5
3	Viva Voce	5

Sheth T. J. Education Society's
Sheth N.K.T.T College of Commerce and
Sheth J.T.T College of Arts, (AUTONOMOUS) Thane (W)

Programme Name: All programmes	**Semester:I**
Course Category: Certificate Course (CC)	
Name of the Department: Sociology	
Course Title: **National Service Scheme**	
Course Code: As per course structure	Course Level: 4.5
Type: Theory / Practical	
Course Credit: 2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)	
Hours Allotted: 30 Hours	
1. Marks Allotted: 50 Marks	
Course Objectives: 1. To make aware the students about NSS ideology ii. To make students understand social issues in India.	
Course Outcomes: 1. Students will be aware the students about NSS ideology 2. Students will understand social issues in India.	
Introduction: The NSS introduces students to the concept of voluntary community service as a means of personal development and nation-building. It typically involves engaging in various activities such as environmental conservation, literacy campaigns, health awareness drives, and disaster relief efforts. Relevance and Usefulness: In today's society, where there is a growing need for civic engagement and social cohesion, the NSS plays a crucial role. It instills a sense of civic duty and social responsibility in young people, empowering them to contribute positively to their communities and society at large. Application: Through hands-on participation in community service projects, NSS volunteers gain practical experience in leadership, teamwork, problem-solving, and communication skills. They also develop a deeper understanding of social issues and learn how to address them effectively through grassroots initiatives. Interest and Connection with Other Courses: The NSS intersects with various academic disciplines such as social work, public administration, sociology, and development studies. It provides students with opportunities to apply theoretical knowledge in real-world settings and reinforces the importance of active citizenship and social justice. Demand in the Industry: Employers increasingly value candidates who demonstrate a commitment to community service and civic engagement. Participation in the NSS signals to potential employers that an individual is socially conscious, proactive, and capable of working collaboratively towards common goals.	

Job Prospects: Graduates who have participated in the NSS often find themselves well-equipped for a wide range of career paths. They may pursue roles in the nonprofit sector, government agencies, corporate social responsibility departments, international development organizations, or even entrepreneurship ventures with a social impact focus.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	MODULE I: Introduction to NSS - Orientation and structure of NSS - The history of NSS- Objectives- Symbol and meaning- NSS hierarchy from national to college level	15
II	UNIT II: Basic social issues in India - Degeneration of value system, family system - Gender issues - Regional imbalance	15
	Total Hours	30

References:

1. National Service Scheme Manual (Revised) 2006, Government of India, Ministry of Youth Affairs and Sports, New Delhi.
2. University of Mumbai National Service Scheme Manual 2009.
3. http://nss.nic.in

Scheme of Examination

Internal : 20 Marks External: 30 Marks

Internal	Marks: 20
Assignment	5 marks
Active participation/Attendance	5 Marks
Class test	10 Marks

Paper Pattern for Internal and External Examination

Internal Examination – Class Test

Q.1. Attempt any two from the following. 10 marks

External Examination-

Assignment based on Community work. 30 marks

Sheth T. J. Education Society's
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Programme Name: **All Programmes** **Semester: I**	
Course Category/Vertical: **Co-Curricular (CC)**	
Name of the Dept: **Psychology**	
Course Title: **Yoga**	
Course Code: As per course structure	Course Level:4.5
Type: Theory / Practical	
Course Credit: 2 credits	
Hours Allotted: 30 Hours	
Marks Allotted: 50 Marks	
Learning Objectives: 1. To impart to the students the knowledge of teachings and philosophy of yoga tradition. 2. To provide the knowledge of various Yoga therapy practices like asana (posture), pranayama (voluntarily regulated breathing techniques).	
Course Outcomes (CO): OC 1. Students will be able to understand the basic principles and applications of Yoga. OC 2. Students will be able to use the Practical knowledge in their day to day life.	
Description the course: **(Including but not limited to)**	Yoga practices will be important for the upcoming lifestyle hence students can seek a career in the same. Students will understand the importance of yoga in life. Students will be having practical exposure. Hence, practicing yoga will help students to maintain their health.

Syllabus: NEP 2020 w.e.f 2024-25

Unit No.	Content	Hours
I	**Theory of Yoga** A) Definition and meaning- Yoga, Sthula & Sukshma Vyayam, Asana, Pranayam, Yama & Niyama, Types of Shuddhi Kriya, Badhak Tatva B) Pranayam- Breath Awareness, Sectional Breathing, Anulom Vilom	10
II	**Practical**	20

	A) Prayer, Yogic Sanchalan, Yogic Sukshma Vyayam : Grievashakti vikasak, Katishakti vikasak, Jangha Shakti vikasak, Shwasan Marg shuddhi & Kapalbhati B) Asana- Standing Yogasana: Tadasana, Vrikshasana, Parivritta Trikonasana, Veerbhadrasana. Sitting Asanas: Vajrasana, Gomukhasa, Sasankasana, Padmasana, Parvatadana, Bhadrasana, Ustrasana. Prone Asanas: Bhujangasana, Ardha Shalbhasana, Adhomukh Shwanasana. Supine Yogasana : Uttanpadasana, Ardha Halasana, Saral Matsyasana, Ardha Pavan Muktasana, Setubandhasana & Shavasana	
	Total Hours	30

References:

1. Rajayoga - Swami Vivekananda - Ramakrishna Ashrama Publications.
2. C.D. Sharma: Critical Survey of Indian Philosophy, Motilal Banarsidass Publications 2003

Scheme of Examination

Internal: 20 Marks External: 30 Marks

Internal	**Marks: 20**
Class test	10 marks
Quiz	5 marks
Class Participation	5 marks

Paper Pattern for External Examination

Practical demonstration of asanas 30 marks