

Kashi Naresh University, Bhadohi

Syllabus of First year

for

Bachelor of Computer Application (BCA)

Three years Degree Course in Computer Application

Effective from Academic Session 2026-2027

Approved by
Board of Studies
Kashi Naresh University
Bhadohi


Convenor BOS
Kashi Naresh University
Bhadohi


Dean
Faculty of Computer Science
Kashi Naresh University
Bhadohi

Semester-wise Course Structure / Titles of the Papers with Credit Distribution for First Year

SEMESTER-I								
Course Code	Course Name	External	Internal	Total	L	T	P	C
BCA-S101T	Computer Fundamental and IT Tools	75	25	100	3	0	0	3
BCA-S102T	Problem Solving Using C	75	25	100	3	0	0	3
BCA-S103T	Principles of Management	75	25	100	4	0	0	4
BCA-S104T	Business Communication	75	25	100	3	1	0	4
BCA-S105T	Mathematics – I	75	25	100	4	0	0	4
BCA-S101P	Computer Laboratory & Practical Work of IT tools	–	–	50	0	0	3	2
BCA-S102P	Computer Laboratory & Practical Work of Problem Solving Using C	–	–	50	0	0	3	2
600								22

SEMESTER-II								
Course Code	Course Name	External	Internal	Total	L	T	P	C
BCA-S106 T	Introduction to Python Programming	75	25	100	3	0	0	3
BCA-S107T	Digital Electronics & Computer Organization	75	25	100	3	1	0	4
BCA-S108T	Organization Behaviour	75	25	100	4	0	0	4
BCA-S109T	Financial Accounting & Management	75	25	100	3	1	0	4
BCA-S110	Elective Paper (Any one of the following) BCA-S110-E1: Fundamentals of Discrete Mathematics BCA-S110-E2: Mathematics – II	75	25	100	4	0	0	4
BCA-S106P	Computer Laboratory & Practical Work of Introduction to Python Programming	–	–	100	0	0	6	3
600								22





Semester -I (Year-I)

Course Code: **BCA-S101T**

Credits: 3

Course Name: **Computer Fundamental and IT Tools**

UNIT-I: Introduction to Computers

Introduction, Characteristics of Computers, Block diagram of computer, Types of computers and features, Mini Computers, Micro Computers, Mainframe Computers, Super Computers. Types of Programming, Languages (Machine Languages, Assembly Languages, High Level Languages). Data Organization, Drives, Files, Directories, Types of Memory (Primary And Secondary) RAM, ROM, PROM, EPROM, Secondary Storage Devices (FD, CD, HD, Pen drive) I/O Devices (Scanners, Plotters, LCD, Plasma Display),

Number Systems: Introduction to Binary, Octal, Hexadecimal system -Conversion, Simple Addition, Subtraction, Multiplication.

UNIT-II: Algorithm and Flowcharts

Algorithm: Definition, Characteristics, Advantages and disadvantages, Examples

Flowchart: Definition, Define symbols of flowchart, Advantages and disadvantages, Examples.

UNIT-III: Operating System and Services in O.S.

Dos – History, Files and Directories, Internal and External Commands, Batch Files, Types of O.S.

UNIT-IV: Windows Operating Environment

Features of MS – Windows, Control Panel, Taskbar, Desktop, Windows Application, Icons, Windows, Accessories, Notepad, Paintbrush.

UNIT-V: Editors and Word Processors

Basic Concepts, Examples: MS-Word, Introduction to desktop publishing.

UNIT-VI: Spreadsheets and Database Packages

Purpose, usage, command, MS-Excel, Creation of files in MS-Access, Switching between applications, MS- Power Point.

Reference Books:

1. Fundamental of Computers – By V.Rajaraman B.P.B. Publications
2. Fundamental of Computers – By P.K. Sinha & Priti Sinha
3. Computer Today- By Suresh Basandra
4. Unix Concepts and Application – By Sumitabha Das
5. MS-Office 2000(For Windows) – By Steve Sagman
6. Computer Networks – By Tanenbaum Tata McGraw Hill Publication
7. Computer Fundamentals- by Dr. Anita Goel,Pearson Education



Course Code: **BCA-S102T**

Credits: 3

Course Name: **Problem Solving Using C**

UNIT-I: Introduction to 'C' Language

History, Structures of „C“ Programming, Function as building blocks. Language Fundamentals Character set, C Tokens, Keywords, Identifiers, Variables, Constant, Data Types, Comments.

UNIT-II: Operators

Types of operators, Precedence and Associativity, Expression, Statement and types of statements Built in Operators and functions, Console based I/O and related built in I/O function: printf(), scanf(), getch(), getchar(), putchar(); Concept of header files, Preprocessor directives: #include, #define.

UNIT-III: Control Structures

Decision making structures: If, If-else, Nested If-else, Switch; Loop Control structures: While, Do-while, for, Nested for loop; Other statements: break, continue, goto, exit.

UNIT-III: Functions

Basic types of function, Declaration and definition, Function call, Types of function, Parameter passing, Call by value, Call by reference, Scope of variable, Storage classes, Recursion.

UNIT-IV: Arrays & Strings

Definition, declaration and initialization of one dimensional array; Accessing array elements; Displaying array elements; Sorting arrays; Arrays and function; Two-Dimensional array: Declaration and Initialization, Accessing and Displaying, Memory representation of array [Row Major, Column Major]; Multidimensional array
Definition, declaration and initialization of strings; standard library function: strlen(), strcpy(), strcat(), strcmp(); Implementation without using standard library functions.

UNIT-V: Pointers & Structures

Definition and declaration, Initialization, Indirection operator, address of operator; pointer arithmetic, dynamic memory allocation, arrays and pointers; function and pointers
Structures Definition and declaration; Variables initialization; Accessing fields and structure operations; Nested structures; Union: Definition and declaration; Differentiate between Union and structure

UNIT-VI : File handling

Definition of Files, Opening modes of files; Standard function: fopen(), fclose(), feof(), fseek(), fwind(); Using text files: fgetc(), fputc(), fscanf()
Command line arguments.

Reference Books :

1. Let us C-Yashwant Kanetkar.
2. Programming in C-Balguruswamy
3. The C programming Lang., Pearson Ecl - Dennis Ritchie
4. Structured programming approach using C- Forouzah & Ceilber Thomson learning publication.
5. Pointers in C – Yashwant Kanetkar
6. How to solve it by Computer – R.G. Dromy
7. Peter Norton: Introduction to Computers – Tata McGraw Hill



Course Code: **BCA-S103T** Course Name: **Principles of Management** Credits: **4**

UNIT-I: Nature of Management

Meaning, Definition, nature & purpose, importance & Functions, Management as Art, Science & Profession- Management as social System Concepts of management-Administration-Organization, Management Skills, Levels of Management.

UNIT-II: Evolution of Management Thought

Contribution of F.W. Taylor, Henri Fayol, Elton Mayo, Chester Barhard & Peter Drucker to the management thought. Business Ethics & Social Responsibility: Concept, Shift to Ethics, Tools of Ethics.

UNIT-III: Functions of Management: Part-I

Planning – Meaning- Need & Importance, types, Process of Planning, Barriers to Effective Planning, levels – advantages & limitations. Forecasting- Need & Techniques Decision making-Types - Process of rational decision making & techniques of decision making, Organizing – Elements of organizing & processes: Types of organizations, Delegation of authority – Need, difficulties , Delegation – Decentralization

Staffing – Meaning & Importance

Direction – Nature – Principles

Communication – Types & Importance

UNIT-IV: Functions of Management: Part-II

Motivation – Importance – theories

Leadership – Meaning –styles, qualities & function of leader

Controlling - Need, Nature, importance, Process & Techniques, Total Quality

Management Coordination – Need – Importance

UNIT – V: Management of Change

Models for Change, Force for Change, Need for Change, Alternative Change Techniques, New Trends in Organization Change, Stress Management.

UNIT-VI: Strategic Management

Definition, Classes of Decisions, Levels of Decision, Strategy, Role of different Strategist, Relevance of Strategic Management and its Benefits, Strategic Management in India

Reference Books:

1. Essential of Management – Horold Koontz and Iteinz Weibrich- McGraw-Hill's International
2. Management Theory & Practice – J.N.Chandan
3. Essential of Business Administration – K.Aswathapa, Himalaya Publishing House
4. Principles & practice of management – Dr. L.M.Prasad,, Sultan Chand & Sons – New Delhi
5. Business Organization & Management – Dr. Y.K.Bhushan
6. Management: Concept and Strategies by J.S. Chandan, Vikas Publishing
7. Principles of Management, By Tripathi, Reddy Tata McGraw Hill, Business organization and Management by Talloo, Tata McGraw Hill
8. Business Environment and Policy – A book on Strategic Management/ Corporate Planning by Francis Cherunilam Himalaya Publishing House 2001 Edition



Course Code: **BCA-S104T** Course Name: **Business Communication**
Credits: 4

UNIT-I: Means of Communication

Meaning and Definition – Process – Functions – Objectives – Importance – Essentials of good communication – Communication barriers, 7C's of Communication

UNIT-II Types of Communication: Oral Communication

Meaning, nature and scope – Principle of effective oral communication – Techniques of effective speech – Media of oral communication (Face-to-face conversation – Teleconferences – Press Conference – Demonstration – Radio Recording – Dictaphone – Meetings – Rumour – Demonstration and Dramatization – Public address system – Grapevine – Group Discussion – Oral report – Closed circuit TV). The art of listening – Principles of good listening.

UNIT-III: Written Communication

Purpose of writing, Clarity in Writing, Principle of Effective writing, Writing Techniques, Electronic Writing Process.

UNIT-IV: Business Letters & Reports

Need and functions of business letters – Planning & layout of business letter – Kinds of business letters – Essentials of effective correspondence, Purpose, Kind and Objective of Reports, Writing Reports.

UNIT-V: Drafting of Business Letters

Enquiries and replies – Placing and fulfilling orders – Complaints and follow-up Sales letters – Circular letters Application for employment and resume

UNIT-VI: Information Technology for Communication

Word Processor – Telex – Facsimile (Fax) – E-mail – Voice mail – Internet – Multimedia – Teleconferencing – Mobile Phone Conversation – Video Conferencing – SMS – Telephone Answering Machine – Advantages and limitations of these types of communication.

Topics Prescribed for workshop/skill lab

Group Discussion, Mock Interview, Decision Making in a Group

Reference Books:

1. Business Communication – K.K.Sinha – Galgotia Publishing Company, New Delhi.
2. Media and Communication Management – C.S. Rayudu – Hikalaya Publishing House, Bombay.
3. Essentials of Business Communication – Rajendra Pal and J.S. Korlhalli- Sultan Chand & Sons, New Delhi.
4. Business Communication (Principles, Methods and Techniques) Nirmal Singh – Deep & Deep Publications Pvt. Ltd, Delhi.
5. Business Communication – Dr. S.V. Kadvekar, Dr. C.N. Rawal and Prof. Ravindra Kothavade- Diamond Publications, Pune.
6. Business Correspondence and Report Writing – R.C. Sharma, Krishna Mohan – Tata McGraw-Hill Publishing Company Limited, New Delhi.
7. Communicate to Win – Richard Denny – Kogan Page India Private Limited, New Delhi.



Course Code: **BCA-S105T**

Course Name: **Mathematics–I**

Credits: **4**

UNIT-I: Determinants

Definition, Minors, Cofactors, Properties of Determinants, MATRICES: Definition, Types of Matrices, Addition, Subtraction, Scalar Multiplication and Multiplication of Matrices, Adjoint, Inverse, Cramers Rule, Rank of Matrix Dependence of Vectors, Eigen Vectors of a Matrix, Caley-Hamilton Theorem (without proof).

UNIT-II: Limits and Continuity

Limit at a Point, Properties of Limit, Computation of Limits of Various Types of Functions, Continuity at a Point, Continuity Over an Interval, Intermediate Value Theorem, Type of Discontinuities

UNIT-III: Differentiation

Derivative, Derivatives of Sum, Differences, Product & Quotients, Chain Rule, Derivatives of Composite

Functions, Logarithmic Differentiation, Rolle's Theorem, Mean Value Theorem, Expansion of Functions (Maclaurin's & Taylor's), Indeterminate Forms, L' Hospital's Rule, Maxima & Minima, Curve Tracing, Successive Differentiation & Liebnitz Theorem.

UNIT-IV: Integration

Integral as Limit of Sum, Fundamental Theorem of Calculus (without proof.), Indefinite Integrals, Methods of Integration: Substitution, By Parts, Partial Fractions, Reduction Formulae for Trigonometric Functions, Gamma and Beta Functions(definition).

UNIT-V: Vector Algebra

Definition of a vector in 2 and 3 Dimensions; Double and Triple Scalar and Vector Product and physical interpretation of area and volume.

Reference Books:

1. B.S. Grewal, "Elementary Engineering Mathematics", 34th Ed., 1998.
2. Shanti Narayan, "Integral Calculus", S. Chand & Company, 1999
3. H.K. Dass, "Advanced Engineering Mathematics", S. Chand & Company, 9th Revised Edition, 2001.
4. Shanti Narayan, "Differential Calculus", S. Chand & Company, 1998



Course Code: **BCA-S101P**

Credits: **2**

Course Name: **Computer Laboratory and Practical Work of IT Tools**

Practical will be based on Paper Office Automation: Covers UNIT-III, UNIT-IV, UNIT-V, UNIT-VI of Syllabus

Course Code: **BCA-S102P**

Credits: **2**

Course Name: **Computer Laboratory and Practical Work of Problem Solving Using C**

Practical will be based on Paper Problem Solving Using UNIT-III, UNIT- IV, UNIT-V, UNIT-VI of Syllabus.



Semester -II (Year-I)

Course Code: **BCA-S106T**
Credits: **3**

Course Name: **Introduction to Python Programming**

UNIT-I: Algorithmic Problem Solving

Algorithms, building blocks of algorithms (statements, state, control flow, functions), notation (pseudo code, flow chart, programming language), algorithmic problem solving, simple strategies for developing algorithms (iteration, recursion). Illustrative problems: find minimum in a list, insert a card in a list of sorted cards, guess an integer number in a range, Towers of Hanoi.

UNIT-II: Data, Expressions, Statements

Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments. Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.

UNIT-III: Control, Flow, Functions

Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scopes, function composition, recursion; Strings: string slices, immutability, string functions and methods, string modules; Lists as arrays. Illustrative programs: square root, GCD, exponentiation, sum an array of numbers, linear search, binary search.

UNIT-IV: Lists, Tuples, Dictionaries

Lists: list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing – list comprehension; Illustrative programs: selection sort, insertion sort, mergesort, histogram.

UNIT-V: Files, Modules, Packages

Files and exceptions: text files, reading and writing files, formatter operator, command line arguments, errors and exceptions, handling exceptions, modules, packages. Illustrative programs: word count, copy file.

Text & References:

1. S Gowrishankar, A Veena, Introduction to Python Programming, 1st Edition, CRC Press/Taylor & Francis.
2. Allen Downey, Jeffrey Elkner, Chris Meyers, How to think like a computer scientist: learning with Python, Freely available online. 2012
3. Robert Sedgewick, K Wayne - Introduction to Programming in Python: An interdisciplinary Approach" Pearson India



Course Code: **BCA-S107T**

Credits: **4**

Course Name: **Digital Electronics & Computer Organization**

UNIT-I: Logic Gates and Circuit

Gates (OR, AND, NOR, NAND, XOR & XNOR); De Morgan's laws; Boolean laws, Circuit designing techniques (SOP, POS, K-Map).

UNIT-II: Combinational Building Blocks

Multiplexors; Decoder; Encoder; Adder and Subtractor.

UNIT-III: Memories

ROMs, PROMs, EPROMs, RAMs, Hard Disk, Floppy Disk and CD-ROM.

UNIT-IV: Sequential Building Blocks

Flip-Flop (RS, D, JK, Master-slave & T flip-flops); Registers & Shift registers; Counters; Synchronous and Asynchronous, Designing method.

UNIT-V: Memory Organization

Basic cell of static and dynamic RAM; Building large memories using chips; Associative memory; Cache memory organization and Virtual memory organization.

Reference Books:

1. Digital Logic and Computer design (PHI) 1998: M.M. Mano
2. Computer Architecture (PHI) 1998: M.M. Mano
3. Digital Electronics (TMH) 1998: Malvino and Leach
4. Computer Organization and Architecture: William Stallings
5. Digital fundamentals (Universal Book Stall) 1998: Floyd, L.Thomas
6. Computer Organization (MC Graw-Hill, Singapore): Hamacher, Vranesic and Zaky



Course Code: **BCA-S108T** Course Name: **Organizational Behaviour** Credits: **4**

UNIT-I: Fundamentals of Organizational Behaviour

Nature, Scope, Definition and Goals of Organizational Behaviour; Fundamental Concepts of Organizational Behaviour; Models of Organizational Behaviour; Emerging aspects of Organizational Behaviour: Meaning, Cultural Diversity, Managing the Perception Process

UNIT-II: Perception, Attitude, Values and Motivation

Concept, Nature, Process, Importance, Management Behavioural aspect of Perception. Effects of employee attitudes; Personal and Organizational Values; Job Satisfaction; Nature and Importance of Motivation; Achievement Motive; Theories of Work Motivation: Maslow's Need Hierarchy Theory, McGregor's Theory „X“ and Theory „Y“

UNIT-III: Personality

Definition of Personality, Determinants of Personality; Theories of Personality- Trait and Type Theories, The Big Five Traits, Mytes-Briggs Indicator; Locus of Control, SType A and Type B Assessment of Personality

UNIT-IV: Work Stress

Meaning and definition of Stress, Symptoms of Stress; Sources of Stress: Individual Level, Group Level, Organizational Level; Stressors, Extra Organizational Stressors; Effect of Stress – Burnouts; Stress Management – Individual Strategies, Organizational Strategies; Employee Counselling

UNIT-V: Group Behaviour and Leadership

Nature of Group, Types of Groups; Nature and Characteristics of team; Team Building, Effective Teamwork; Nature of Leadership, Leadership Styles; Traits of Effective Leaders

UNIT-VI: Conflict in Organizations

Nature of Conflict, Process of Conflict; Levels of Conflict – Intrapersonal, Interpersonal; Sources of Conflict; Effect of Conflict; Conflict Resolution, Meaning and types of Grievances & Process of Grievances Handling.

Reference Books:

1. Organizational Behavior Text, Cases and Games- K. Aswathappa, Himalaya Publishing House, Mumbai, Sixth Edition (2005)
2. Organizational Behavior Human Behavior at Work -J.W. Newstrom, Tata McGraw Hill Publishing Company Limited, New Delhi, 12 Edition (2007)
3. Organizational Behavior – By Fred Luthans
4. Organizational Behavior – By Super Robbins
5. Organizational Behavior – Anjali Ghanekar
6. Organizational Behavior Fundamentals, Realities and Challenges - Detra Nelson, James Campbel: Quick Thomson Publications
7. Organizational Behavior through Indian Philosophy- N.M. Mishra, Himalaya Publication House



Course Code: **BCA-S109T** Course Name: **Financial Accounting & Management**
Credits: 4

UNIT-I: Overview

Meaning and Nature of Financial Accounting, Scope of Financial Accounting, Financial Accounting & Management Accounting, Accounting concepts & convention, accounting standards in India.

UNIT-II : Basics of Accounting

– Capital & Revenue items, Application of Computer in Accounting, Double Entry System, Introduction to Journal, Ledger and Procedure for Recording and Posting, Introduction to Trial Balance, Preparation of Final Account, Profit & Loss Account and related concepts, Balance Sheet and related concept.

UNIT-III: Financial Statement Analysis

Ratio analysis, Funds flow analysis, concepts, uses, Preparation of funds flow statement - simple problems, Cash flow analysis, Concepts, uses, preparation of cash flow statement- simple problems, Break – even analysis.

UNIT-IV

Definition nature and Objective of Financial Management, Long Term Sources of Finance, Introductory idea about capitalization, Capital Structure, Concept of Cost of Capital, introduction, importance, explicit & implicit cost, Measurement of cost of capital, cost of debt.

UNIT-V

Concept & Components of working Capital. Factors Influencing the Composition of working Capital, Objectives of working Capital Management – Liquidity Vs. Profitability and working capital policies. Theory of working capital: Nature and concepts.

UNIT-VI

Cash Management, Inventory Management and Receivables Management.

Reference Books:

1. Maheshwari & Maheshwari, “An Introduction to Accountancy”, 8 Edition, Vikas Publishing House, 2003
2. Gupta R.L., Gupta V.K., “Principles & Practice of Accountancy”, Sultan Chand & Sons, 1999.
3. Khan & Jain, “Financial Accounting”
4. Maheshwari S.N., “Principles of Management Accounting”, 11 Edition, Sultan Chand & Sons, 2001.
5. Shukla and Grewal, “Advanced Accounts”, 14 Edition, Sultan Chand & Sons.



Course Code: **BCA-S110E1**

Credits: 4

Course Name: **Fundamentals of Discrete Mathematics**

UNIT-I: Introduction

Statements and Notation, Connectives, Negation, Conjunction, Disjunction, Statement formulas and Truth tables. Conditional and Biconditional, Tautologies, Contradictions, WFF, Equivalence of formulae, Duality law, Two state Devices and Statement Logic. Normal forms, Disjunctive Normal Forms, Conjunctive Normal forms

Unit-II: Sets and Elements

Sets and Elements, Equality of Sets, Subsets, Set operations, Venn Diagrams & Set operations, Fundamentals products, Algebra of Sets, Duality, Finite Sets, Counting Principles, Classes of Sets, Induction, Symmetric Difference.

Unit-III: Relations

Relations, Representation of Relations, Compositions of Relations, Types of Relations, Equivalence Relations, Partial Ordering Relation, Functions: Function, Mapping, Real valued, Composition, One to One, Onto, Invertible, and the Cardinality of a set.

UNIT-IV: Graphs

Basic Concepts: Graphs, Incidence and degree, Isomorphism, Sub graphs and Union of graphs, connectedness, Walks, Paths and Circuits, Euler's Formula, Eulerian graph, Hamiltonian graph, Chromatic Graphs, Planer Graphs, Travelling salesman problem, Complete, Regular and Bipartite graphs, Directed Graphs

Unit-V: Trees

Basic Concepts: Trees and their properties, Binary Tree, Traversing Binary Tree, Complete and Extended Binary Tree, Directed Tree, Depth first search algorithm

References:

1. J.P Tremblay, R. Manohar, Discrete Mathematical Structures with Application of Computer Science, Tata McGraw Hill.
2. Seymour Lipschutz, Discrete Mathematics, McGraw Hill.
3. Joe I. Mott, Abraham Kandel, Theodore P. Baker, Discrete Mathematics for Computer Scientists and Mathematicians, PHI.
4. Narsingh Deo, Graph Theory, PHI
5. V.K. Balakrishnan, Graph Theory, Tata McGraw Hill.



UNIT-I: Sets

Sets, Subsets, Equal Sets, Universal Sets, Finite and Infinite Sets, Operation on Sets, Union, Intersection and Complements of Sets, Cartesian Product, Cardinality of Set, Simple Applications.

UNIT-II: Relations and Functions

Properties of Relations, Equivalence Relation, Partial Order Relations, Function: Domain and Range, Onto, Into and One to One Functions, Composite and Inverse Functions, Introduction to Trigonometric, Logarithmic and Exponential Functions.

UNIT-III: Partial Order Relations and Lattices

Partial Order Sets, Representation of POSETS using Hasse diagram, Chains, Maximal and Minimal Point, Glb, lub, Lattices & Algebraic Systems, Principle of Duality, Basic Properties, Sub lattices, Distributed & Complemented Lattices.

UNIT-IV: Functions of Several Variables

Partial Differentiation, Change of Variables, Chain Rule, Extrema of Functions of 2 Variables, Euler's Theorem.

UNIT-V: 3D Coordinate Geometry

3D Coordinate Geometry: Coordinates in Space, Direction Cosines, Angle Between Two Lines, Projection of Join of Two Points on a Plane, Equations of Plane, Straight Lines, Conditions for a line to lie on a plane, Conditions for Two Lines to be Coplanar, Shortest Distance Between Two Lines, Equations of Sphere, Tangent plane at a point on the sphere.

UNIT-VI: Multiple Integration

Double Integral in Cartesian and Polar Coordinates to find Area, Change of Order of Integration, Triple Integral to Find Volume of Simple Shapes in Cartesian Coordinates.

Reference Books:

1. Kolman, Busby and Ross, "Discrete Mathematical Structure", PHI, 1996.
2. S.K. Sarkar, "Discrete Mathematics"; S. Chand & Co., 2000



Course Code: **BCA-S106P**

Credits: 3

Course Name: **Computer Laboratory & Practical Work of Introduction to Python Programming**

Practical will be based on Paper Introduction to Python Programming Covers UNIT-III, UNIT-IV, UNIT-V of Syllabus.

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