BCA- SEMESTER-I													
Sl. No.	**Subject Codes**	**Subject**	**Periods**			**Evaluation Scheme**				**End Semester**		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BCA- 101	Computer Fundamental & Office Automation	3	1	0	20	10	30		70		100	4
2	BCA-102	Introduction of C PROGRAMMI NG	3	1	0	20	10	30		70		100	4
3	BCA-103	Principle of Management	3	0	0	20	10	30		70		100	3
4	BCA-104	Business Communicatio n	3	1	0	20	10	30		70		100	4
5	BCA-105	Mathematics - I	3	1	0	20	10	30		70		100	4
6	BCA- 111	CF & OA Lab	0	0	1						50		1
7	BCA 112	C PROGRAMMI NG LAB	0	0	1						50		1
		Total										600	21

LAB SUBJECT:-

BCA   111- Computer Fundamental & Office Automation

BCA   112- C Programming Lab

Subject: -	Subject Code	Max.marks	Credit
Computer Fundamental & Office Automation	BCA-101	70	4

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.

Subject: -	Subject Code	Max.marks	Credit
Business Communication	BCA-104	70	**4**

UNIT-I
Communication-Defining communication, Process of communication, Communication Model, Objectives of communication, Principles of communication, Importance of Business communication, Importance Feedback.
Types of communication, Dimensions of communication, Barriers to communication Verbal, Non-Verbal, Formal, Informal communication.

UNIT – II
Oral Communication:-
Spoken skills Conducting Presentation, Oral presentation, Debates, Speeches, Interview, Group Discussion, English Pronunciation, Building Vocabulary.
Barriers to Effective Communication and ways to overcome them, Listening: Importance of Listening, Types of Listening, Barriers to Listening and overcoming them, Listening situations, Developing Listening Skills.

UNIT -III
Written Communication:-
Purpose of writing, Clarity in Writing, Pricinciple of Effective writing, Writing Techniques, Electronic Writing Process.
Employment Messages Writing Resume, Application letter, writing the opening paragraph, writing the closing paragraph, summarizing.

UNIT –IV
Business Letters & Reports:
Fundamental of Business writing, Format of Business, Types of Business letter, Inquiry letter, complaint letter, Persuasive letter, Proposal, Report Writing.

UNIT -V
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

Referential Books:-

1) Business Communication - K.K.Sinha - Galgotia Publishing Company, New Delhi.
2) Essentials of Business Communication - Rajendra Pal and J.S. Korlhalli- Sultan Chand & Sons, New Delhi.
3) Business Correspondence and Report Writing - R.C. Sharma, Krishna Mohan - Tata McGraw-Hill Publishing Company Limited, New Delhi.

Subject: -	Subject Code	Max. marks	Credit
Introduction of C programming	BCA-102	70	4

Unit I

Basic of C:-

Fundamentals of C, History and Importance of C, Role of Compiler. Role of Interpreter, Installation of C Editor. Basic Structure of c program, Writing C Programs, Execution of C program. Header file, preprocessor, Types of comment. Constants, Variables and Data Types. Various types of declarations, Different type of operators and Expressions.

Unit II

Control statement:-

Conditional Control Statements –if –if-else –nested if-else –else-if ladder –Multiple Branching Control Statement –switch-case –Loop Control Statements –while –do-while –for –Nested Loops –Jump Control statements –break –continue –goto –exit –return

Unit III

Array and function:-

Introduction of an Array, types of an array, One - dimensional Arrays and their declaration and Initializations, Two-dimensional Arrays and their declaration and initializations, Multidimensional Arrays.

Introduction of function, Why function ,Advantages of using functions , Function Prototype ,Defining a function ,Calling a function, Return statement, Types of functions ,Recursion ,Nested functions, main() function, Library Function, call by value and call by reference, recursive functions.

Unit IV

String and Pointer:-

Initializing strings –Reading string –Displaying string –string handling functions, Declaring and initializing string variables, reading string from terminal, writing string to screen, putting strings together, comparison of two strings.

Def. of Pointer –Declaration of Pointer Variables –Assigning Address to Pointer Variables –De-referencing Pointer Variables –Pointer to Pointer –Pointer Arithmetic –Pointer comparisons –De-reference and increment pointer –pointer to const data –const pointer –const pointer to const data –Void pointer or Generic Pointer –Null pointer –wild pointer.

Unit V

Structure and file handling:-

Why is structure used –What is structure –Advantages of structures –Defining a Structure –Declaration of Structure Variables –Initialization of Structure Variables –Accessing Structure Members –Storage of Structures in Memory –Size of Structures –Reading and Displaying Structure Variables –Assignment of Structure Variables –Pointers to structures –Array of structures –Arrays within structures –Nested structures.

Using files in C. Defining and Opening a file, closing a file, input/output operations on files, error handling during I/O operations, random access to files, Command Line Arguments.

Referential Books:-

1. E. Balagurusamy, "Programming with ANSI-C", Fourth Edition,2008, Tata McGraw Hill.
2. Kanetkar Y, "Let us C", BPB Publications, 2007.

Subject: -	Subject Code	Max.marks	Credit
Principle of management	BCA-103	70	3

Unit-1- Introduction to Management

Definition of Management, nature and importance of management, Functions Planning, Organizing, Staffing, Directing, Controlling. Levels of management, Management as a Profession, Role of Manager in Organization, Contribution of F.W. Taylor, Henry Fayol, Max Weber Elton Mayo and Peter Drucker to management theory.

Unit-2- Planning & Organizing

Meaning, Nature and Importance and limitation of planning, Types of plans, steps in planning. Organizing: - Meaning, definition, Importance, principles of organizing. Formal & Informal organization, Virtual organization.

Unit-3- Staffing & Motivation

Staffing:- Meaning, Definition, Characteristics, Process of Staffing, Sources of Recruitment & Scientific Selection Procedure Training & Development, Performance appraisal.

Motivation: - Meaning, definition & importance of motivation, Theories of motivation –Need Theory, Two factor theory & Theory X & Y.

Unit-4- Leading & Controlling

Meaning, Definition, Important aspects of Leading: function, Supervision, Leadership, Challenges of Leadership, Functions of a Leader, Leadership Styles, Team Leadership.

Controlling: - Meaning, Importance, Steps in Control Process, Types of control Feed forward control, Concurrent control & feedback control, Techniques of control

Unit- 5- Recent Trends in Management

Social Responsibility of Management – environment friendly management, Management of Change, Management of Crisis, Total Quality Management, Stress Management, International Management.

Reference Books:-

1. Principles of Management- P. Subba Rao

2. Principles & practice of Management by Geeage Terry.

3. Principles & Practice of Management by Tripathis C.reddy

4. Management a global Practice-Heinz Welthrich & Harold Koontz.

Subject: -	Subject Code	Max.marks	Credit
Mathematics I	BCA-105	70	4

Unit-I- Determinants and Matrices

Definition of determinant, Minors, Cofactors, Properties of Determinants, Definition of Matrices, Types of Matrices, Matrix Addition, Matrix Subtraction, Matrix Multiplication, Scalar Multiplication, Adjoint, Inverse, Cramer's Rule, Rank of Matrix Dependence of Vectors, Eigen Vectors of a Matrix, Calley-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 and Quotients, Chain Rule, Derivatives of Composite, Functions, Logarithmic Differentiation, Rolle's Theorem, Mean Value Theorem, Expansion of Functions (Maclaurin's and Taylor's),Indeterminate Forms' Hospitals Rule, Maxima and Minima, Curve Tracing, Successive Differentiation and 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, Definition of Gamma and Beta Functions)

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. Grewal B.S., Higher Engineering Mathematics, Delhi Khanna Publishers.