

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science
Teaching Plan Session-2017-18
B.Sc.-Ist Semester-Ist

1S : Computer Science or Computer Application or Information Technology
Paper-I Computer Fundamentals and C Programming

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	July	UNIT-I : Introduction to Computers	Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers : Impact, Non-impact, DMP, inkjet , Laser.	04 03 03 02 03	15
2	July - Aug	UNIT-II : Introduction to OS :	DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD, RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC. BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.	04 04 03 04	15
3		UNIT-III : Introduction to Internet :	Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.	04 03 03 02 03	15
4		UNIT-IV : Programming Concept :	Algorithm flowcharting programming languages, assembler, interpreter, compiler programming process : program design, coding compilation, Execution, testing, debugging documentation structured programming :	04 04 03 04	15

			features and approaches		
5		UNIT-V : Elements of C	: Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	04 03 03 02 03	15
6		UNIT- VI : I/O Operations :	Formatted I/O : Printf () , Scanf () , Unformatted I/O : getch () , getche () , getchar () , putch () , putche () , putchar () , gets () , Puts () , Controal structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nest ing of loops, break, continue.	04 04 03 04	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2017-18

B.Sc.-Ist Semester-IInd

Paper - Computer Application or Information Technology Data Structure and Advance C

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	Dec- Jan-	UNIT-I :	Introduction to Data structure, type of data structures, list, array, stack and Queue; Algorithms of traversing, insertion and deletion operation on it.	04 03 03 02 03	15
2	Jan	UNIT-II	: Linked list & its implementation, traversing, insertion, deletion algorithms, circular Queue.	04 04 03 04	15
3	Feb	UNIT-III	Tree : Binary, Binary search tree, tree Traversing : inorder, preorder and postorder, sorting and searching Techniques : Bubble sort, insertion sort and selection sort, linear search, Binary search.	04 03 03 02 03	15
4	Feb March	UNIT-IV	Function : Definition, prototype, local & global variable, function parameter, function calling and return, return values and their types, function recursion Arrays : Declaration and initialization of one and two dimensional arrays, function with array.	04 04 03 04	15
5	March	UNIT-V	String Handling : Declaring and initialization of string variable , operations on string : String copy comparison, concatenation. Pointers : Declaration and initialization, pointer and address arithmetic , Pointer comparison, Pointer and array.	04 03 03 02 03	15

6	April	UNIT-VI	:Structure : Definition and declaration , initialization, array of structure , nested structure Union File Handling : Definition and opening a file, closing a file , I/O Operations on file :	04 04 03 04	15

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Department of computer science

Teaching Plan Session-2017-18

B.Sc.-IInd Semester-IIIrd

Paper-Object-Oriented Programming with C++ and Web Technology

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit I :	Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants	04 03 03 02 03	15
2	July Aug	Unit II :	Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do..while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading	04 04 03 04	15
3	Aug	Unit III :	Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.	04 03 03 02 03	15
4	Sept	Unit-IV	Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model	04 04 03 04	15
5	Sept	Unit V	HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes < HTML >, < HEAD >, < TITLE >, < BODY >, < P >, < Br >, < HR >, Heading tags, table tags,, <	04 03 03	15

			IMG>, , , < MARQUEE>,< BLOCKQUOTE >, < A >, < I >, < B >, list tag, Attributes : allign, background colour, text color	02 03	
6	Oct	Unit VI	Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS stylesheet properties : Units, classes and ID attributes. Properties : Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.	04 04 03 04	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana**Department of computer science****Teaching Plan Session-2017-18****B.Sc.-IInd Semester-IVth****Paper - Advanced C++ and Web Designing**

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit I :	Arrays and Pointers : one-dimensional, two-dimensional arrays, Defining Pointers, arrays of objects, Pointer to objects, this pointer operator overloading : Defining operator overloading, overloading arrays, Binary, and assignment operators, rules for overloading operators.	04 04 03 04	15
2	Jan	Unit II :	Inheritance : Introduction, derived classes, Single inheritance, multiple inheritance, Hierarchical and Hybrid inheritance. Templates : Function, class, members and Function templets.	04 03 03 02 03	15
3	Feb	Unit III :	: Virtual Functions and Polymorphism :- Introduction, Pointers to derived class, dynamic binding, defination of Virtual Function, pure Virtual Functions, Rules For Virtual Functions. Working with Files : Introduction, Hierarchy of File Stream Classes, opening and closing of Files, File modes, File pointers and their manipulations, File Input/Output with Fstream class	04 04 03 04	15
4	Feb March	Unit IV :	Introduction to XML : History of Markup languages, features of XML, Simple XML document, logical structure of XML elements, Components of XML documents : The document prolog and document instance. CSS with XML.	04 03 03 02 03	15
5	March	Unit V :	Document type Defination (DTD): Introduction, need of DTD, declaring elements, element content models, declaring attributes, attribute types : internal and external DTD, entities and their types	04 04 03 04	15
6	April	Unit VI :	XML Schemas : Introduction, features, Comparison with	04	15

			DTD, Schema elements, element type element attributes, XML schema data types, converting DTD to schema, Namespaces : Introduction, declaration, default & prefix namespaces, scope of namespaces collusion & Applications	03 03 02 03	

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana**Department of computer science****Teaching Plan Session-2017-18****B.Sc.-IIIrd Semester-Vth****Paper- RDBMS AND VISUAL BASIC**

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary	04	15
			Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.	03 03 02 03	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 04 03 04	15
3	Sept	Unit III :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING;	04 04 03 04	15
4		unit IV :	: Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window; Managing Control : Form properties, pointer tool, label control, text box, command button, picture box, image	04 03 03 02 03	15
5	Sept	Unit V :	Creating Menus : Application wizard for menu, menu editor, creating menu, adding code to menus, data types & variables. Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto do loop, for loop, nested for loop	04 04 03 04	15

6	Oct	Unit VI :	Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option butto	04 03 03 02 03	15
			VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments		

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Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana**Department of computer science****Teaching Plan Session-2017-18****B.Sc.-IIIrdSemester-VIth****Paper -PL/SQL AND ADVANCED VISUAL BASIC**

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit- I :	: Data Integrity, types of integrity constants. Functions : Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP. Character Function : INITCAP, LOWER, UPPER, INSTR LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDIX, DECODE. Joins and Unions : Self, equi and outer join, unions and intersection.	04 03 03 02 03	15
2	Jan	Unit- II :	: PL/SQL : Features and block structure, variables and constant, data types, control structure. Cursor : Concepts of cursor, types, declaring, opening, using cursors, fetching data, closing a cursor, cursor attributes. Transaction : Rollback, commit and autocommit, save point, rollback segment	04 04 03 04	15
3	Feb	Unit- III :	a) Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks	04 03 03 02 03	15

4	Feb March	Unit-IV :	Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box, producing the open dialog boxes, producing file save dialog boxes, producing the print dialog boxes. Mouse and Control : Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes	04 04 03 04	15
5	March	Unit-V :	: Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms	04 03 03 02 03	15
6	April	Unit VI :	: Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement, working with random access file, put statement, get statement, defining user defined data types, file control, file related commands	04 03 03 02 03	15

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Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2018-19

B.Sc.-Ist Semester-Ist

Paper -: Computer Science or Computer Application or Information Technology
Paper-I Computer Fundamentals and C Programming

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	July	UNIT-I : Introduction to Computers	Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers : Impact, Non-impact, DMP, inkjet , Laser.	04 04 03 04	15
2	July - Aug	UNIT-II : Introduction to OS :	DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD,RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC. BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.	04 03 03 02 02	15
3		UNIT-III : Introduction to Internet :	Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.	04 04 03 04	15
4		UNIT-IV :	Algorithm flowcharting programming languages,	04	15

		Programming Concept :	assembler, interpreter, compiler programming process : program design, coding compilation, Execution, testing, debugging documentation structured programming : features and approaches	03 03 02 02	
5		UNIT-V : Elements of C	: Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	04 03 03 02 02	15
6		UNIT- VI : I/O Operations :	Formatted I/O : Printf () , Scanf () , Unformatted I/O : getch () , getche () , getchar () , putch () , putche () , putchar () , gets () , Puts () , Controal structure : if , if.. else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.	04 03 03 02 02	15

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Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana

Department of Computer Science

Teaching Plan Session-2018-19

B.Sc.-Ist Semester-IInd

Paper -Computer Application or Information Technology Data Structure and Advance C

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	Dec- Jan-	UNIT-I :	Introduction to Data structure, type of data structures, list, array, stack and Queue; Algorithms of traversing, insertion and deletion operation on it.	04 03 03 02 02	15
2	Jan	UNIT-II	: Linked list & its implementation, traversing, insertion, deletion algorithms, circular Queue.	04 04 03 04	15
3	Feb	UNIT-III	Tree : Binary, Binary search tree, tree Traversing : inorder, preorder and postorder, sorting and searching Techniques : Bubble sort, insertion sort and selection sort, linear search, Binary search.	04 03 03 02 02	15
4	Feb March	UNIT-IV	Function : Definition, prototype, local & global variable, function parameter, function calling and return, return values and their types, function recursion Arrays : Declaration and initialization of one and two dimensional arrays, function with array.	04 04 03 04	15

5	March	UNIT-V	String Handling : Declaring and initialization of string variable , operations on string : String copy comparison, concatenation. Pointers : Declaration and initialization, pointer and address arithmetic , Pointer comparison, Pointer and array.	04 03 03 02 02	15
6	April	UNIT-VI	:Structure : Definition and declaration , initialization, array of structure , nested structure Union File Handling : Definition and opening a file, closing a file , I/O Operations on file :	04 04 03 04	15

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Department of computer science

Teaching Plan Session-2018-19

B.Sc.-IInd Semester-IIIrd

Paper- Paper-Object-Oriented Programming with C++ and Web Technology

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit I :	Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants	04 03 03 02 02	15
2	July Aug	Unit II :	Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do..while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading	04 04 03 04	15
3	Aug	Unit III :	Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.	04 03 03 02 02	15

4	Sept	Unit-IV	Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model	04 04 03 04	15
5	Sept	Unit V	HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes < HTML >, < HEAD >, < TITLE >, < BODY >, < P >, < Br >, < HR >, Heading tags, table tags,, < IMG>, , , < MARQUEE>,< BLOCKQUOTE >, < A >, < I >, < B >, list tag, Attributes : allign, background colour, text color	04 03 03 02 02	15
6	Oct	Unit VI	Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS stylesheet properties : Units, classes and ID attributes. Properties : Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.	04 04 03 04	15

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Department of computer science

Teaching Plan Session-2018-19

B.Sc.-IInd Semester-IVth

Paper - Paper - Advanced C++ and Web Designing

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit I :	Arrays and Pointers : one-dimensional, two-dimensional arrays, Defining Pointers, arrays of objects, Pointer to objects, this pointer operator overloading : Defining operator overloading, overloading arrays, Binary, and assignment operators, rules for overloading operators.	04 03 03 02 02	15
2	Jan	Unit II :	Inheritance : Introduction, derived classes, Single inheritance, multiple inheritance, Hierarchical and Hybrid inheritance. Templates : Function, class, members and Function templets.	04 03 03 02 02	15
3	Feb	Unit III :	: Virtual Functions and Polymorphism :- Introduction, Pointers to derived class, dynamic binding, defination of Virtual Function, pure Virtual Functions, Rules For Virtual Functions. Working with Files : Introduction, Hierarchy of File Stream Classes, opening and closing of Files, File modes, File pointers and their manipulations, File Input/Output with Fstream class	04 04 03 04	15
4	Feb March	Unit IV :	Introduction to XML : History of Markup languages, features of XML, Simple XML document, logical structure of XML elements, Components of XML documents : The document prolog and document instance. CSS with XML.	04 03 03 02 02	15

5	March	Unit V :	Document type Defination (DTD): Introduction, need of DTD, declaring elements, element content models, declaring attributes, attribute types : internal and external DTD, entities and their types	04 04 03 04	15
6	April	Unit VI :	XML Schemas : Introduction, features, Comparison with DTD, Schema elements, element type element attributes, XML schema data types, converting DTD to schema, Namespaces : Introduction, declaration, default & prefit namespaces, scope of namespaces collusion & Applications	04 03 03 02 02	15

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Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science
Teaching Plan Session-2018-19
B.Sc.-IIIrd Semester-Vth
Paper- RDBMS AND VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary	04	15
			Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.	03 04	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 03 03 02 02	15
3	Sept	Unit III :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING;	04 03 03 02 02	15
4		unit IV :	: Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window; Managing Control : Form properties, pointer tool, label control, text box, command button, picture box, image	04 04 03 04	15

5	Sept	Unit V :	Creating Menus : Application wizard for menu, menu editor, creating menu, adding code to menus, data types & variables. Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto do loop, for loop, nested for loop	04 03 03 02 02	15
6	Oct	Unit VI :	Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option butto	04 04 03 04	15
			VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments		

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Department of computer science

Teaching Plan Session-2018-19

B.Sc.-IIIrdSemester-VIth

Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	: Data Integrity, types of integrity constants. Functions : Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP	04	15
			. Character Function : INITCAP, LOWER, UPPER, INSTR LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDEX, DECODE. Joins and Unions : Self, equi and outer join, unions and intersection	04 03 04	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 03 03 02 02	15
3	Sept	Unit III :	Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks	04 04 03 04	15
4		unit IV :	Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box,	04 03 03	15

			producing the open dialog boxes, producing file save dialog boxes, producing the print dialog boxes. Mouse and Control : Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes	02 02	
5	Sept	Unit V :	: Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms	04 04 03 04	15
6	Oct	Unit VI :	: Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement, working with random access file, put statement, get statement, defining user defined data types, file control, file related commands	04 03 03 02 02	15

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Department of Computer Science

Teaching Plan Session-2019-20

B.Sc.-Ist Semester-Ist

1S : Computer Science or Computer Application or Information Technology
Paper-I Computer Fundamentals and C Programming

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	July	UNIT-I : Introduction to Computers	Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers : Impact, Non-impact, DMP, inkjet , Laser.	04 04 03 04	15
2	July - Aug	UNIT-II : Introduction to OS :	DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD,RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC. BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.	04 03 03 02 03	15
3		UNIT-III : Introduction to Internet :	Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.	04 04 03 04	15
4		UNIT-IV : Programming	Algorithm flowcharting programming languages, assembler, interpreter, compiler programming process :	04 03	15

		Concept :	program design, coding compilation, Execution, testing, debugging documentation structured programming : features and approaches	03 02 03	
5		UNIT-V : Elements of C	: Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	04 04 03 04	15
6		UNIT- VI : I/O Operations :	Formatted I/O : Printf () , Scanf () , Unformatted I/O : getch () , getche () , getchar () , putch () , putche () , putchar () , gets () , Puts () , Controal structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.	04 03 03 02 03	15

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Department of Computer Science

Teaching Plan Session-2019-20

B.Sc.-Ist Semester-IInd

Computer Application or Information Technology Data Structure and Advance C

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	Dec- Jan-	UNIT-I :	Introduction to Data structure, type of data structures, list, array, stack and Queue; Algorithms of traversing, insertion and deletion operation on it.	04 04 03 04	15
2	Jan	UNIT-II	: Linked list & its implementation, traversing, insertion, deletion algorithms, circular Queue.	04 03 03 02 03	15
3	Feb	UNIT-III	Tree : Binary, Binary search tree, tree Traversing : inorder, preorder and postorder, sorting and searching Techniques : Bubble sort, insertion sort and selection sort, linear search, Binary search.	04 03 03 02 03	15
4	Feb March	UNIT-IV	Function : Definition, prototype, local & global variable, function parameter, function calling and return, return values and their types, function recursion Arrays : Declaration and initialization of one and two dimensional arrays, function with array.	04 04 03 04	15

5	March	UNIT-V	String Handling : Declaring and initialization of string variable , operations on string : String copy comparison, concatenation. Pointers : Declaration and initialization, pointer and address arithmetic , Pointer comparison, Pointer and array.	04 03 03 02 03	15
6	April	UNIT-VI	:Structure : Definition and declaration , initialization, array of structure , nested structure Union File Handling : Definition and opening a file, closing a file , I/O Operations on file :	04 04 03 04	15

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Teaching Plan Session-2019-20

B.Sc.-IInd Semester-IIIrd

Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit I :	Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants	04 04 03 04	15
2	July Aug	Unit II :	Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do..while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading	04 03 03 02 03	15
3	Aug	Unit III :	Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.	04 04 03 04	15

4	Sept	Unit-IV	Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model	04 03 03 02 03	15
5	Sept	Unit V	HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes < HTML >, < HEAD >, < TITLE >, < BODY >, < P >, < Br >, < HR >, Heading tags, table tags,, < IMG>, , , < MARQUEE>,< BLOCKQUOTE >, < A >, < I >, < B >, list tag, Attributes : allign, background colour, text color	04 04 03 04	15
6	Oct	Unit VI	Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS stylesheet properties : Units, classes and ID attributes. Properties : Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.	04 03 03 02 03	15

Name & Sign of Teacher

Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science
Teaching Plan Session-2019-20
B.Sc.-IInd Semester-IVth
Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit I :	Arrays and Pointers : one-dimensional, two-dimensional arrays, Defining Pointers, arrays of objects, Pointer to objects, this pointer operator overloading : Defining operator overloading, overloading arrays, Binary, and assignment operators, rules for overloading operators.	04 04 03 04	15
2	Jan	Unit II :	Inheritance : Introduction, derived classes, Single inheritance, multiple inheritance, Hierarchical and Hybrid inheritance. Templates : Function, class, members and Function templates.	04 03 03 02 03	15
3	Feb	Unit III :	: Virtual Functions and Polymorphism :- Introduction, Pointers to derived class, dynamic binding, defination of Virtual Function, pure Virtual Functions, Rules For Virtual Functions. Working with Files : Introduction, Hierarchy of File Stream Classes, opening and closing of Files, File modes, File pointers and their manipulations, File Input/Output with Fstream class	04 02 02 04 04	15
4	Feb March	Unit IV :	Introduction to XML : History of Markup languages, features of XML, Simple XML document, logical structure of XML elements, Components of XML documents : The document prolog and document instance. CSS with XML.	04 04 03 04	15

5	March	Unit V :	Document type Defination (DTD): Introduction, need of DTD, declaring elements, element content models, declaring attributes, attribute types : internal and external DTD, entities and their types	04 03 03 02 03	15
6	April	Unit VI :	XML Schemas : Introduction, features, Comparison with DTD, Schema elements, element type element attributes, XML schema data types, converting DTD to schema, Namespaces : Introduction, declaration, default & prefit namespaces, scope of namespaces collusion & Applications	04 04 03 04	15

Name & Sign of Teacher

Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2019-20

B.Sc.-IIIrd Semester-Vth

Paper- RDBMS AND VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary	04	15
			Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.	04	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 03 03 02 03	15
3	Sept	Unit III :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING;	04 02 02 04 04	15
4		unit IV :	: Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window; Managing Control : Form	04 04 03 04	15

			properties, pointer tool, label control, text box, command button, picture box, image		
5	Sept	Unit V :	Creating Menus : Application wizard for menu, menu editor, creating menu, adding code to menus, data types & variables. Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto do loop, for loop, nested for loop	04 03 03 02 03	15
6	Oct	Unit VI :	Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option butto	04 04 03 04	15
			VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments		

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2019-20
B.Sc.-IIIrdSemester-VIth
Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	: Data Integrity, types of integrity constants. Functions : Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP	04 04 03 04	15
			. Character Function : INITCAP, LOWER, UPPER, INSTR LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDEX, DECODE. Joins and Unions : Self, equi and outer join, unions and intersection		
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 03 03 02 03	15
3	Sept	Unit III :	Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks	04 04 03 04	15
4		unit IV :	Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box, producing the open dialog boxes, producing file save dialog	04 02 02 04 04	15

			boxes, producing the print dialog boxes. Mouse and Control : Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes		
5	Sept	Unit V :	: Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms	04 04 03 04	15
6	Oct	Unit VI :	: Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement, working with random access file, put statement, get statement, defining user defined data types, file control, file related commands	04 03 03 02 03	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2020-21

B.Sc.-Ist Semester-Ist

1S : Computer Science or Computer Application or Information Technology
Paper-I Computer Fundamentals and C Programming

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	July	UNIT-I : Introduction to Computers	Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers : Impact, Non-impact, DMP, inkjet , Laser.	04 03 02 02 04	15
2	July - Aug	UNIT-II : Introduction to OS :	DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD,RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC. BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.	04 03 03 02 03	15
3		UNIT-III : Introduction to Internet :	Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.	04 03 02 02 04	15
4		UNIT-IV : Programming	Algorithm flowcharting programming languages, assembler, interpreter, compiler programming process :	04 03	15

		Concept :	program design, coding compilation, Execution, testing, debugging documentation structured programming : features and approaches	03 02 03	
5		UNIT-V : Elements of C	: Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	04 04 03 04	15
6		UNIT- VI : I/O Operations :	Formatted I/O : Printf () , Scanf () , Unformatted I/O : getch () , getche () , getchar () , putch () , putche () , putchar () , gets () , Puts () , Controal structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.	04 03 02 02 04	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2020-21

B.Sc.-Ist Semester-IInd

Computer Application or Information Technology Data Structure and Advance C

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	Dec- Jan-	UNIT-I :	Introduction to Data structure, type of data structures, list, array, stack and Queue; Algorithms of traversing, insertion and deletion operation on it.	04	15
				03	
				03	
				02	
				03	
2	Jan	UNIT-II	: Linked list & its implementation, traversing, insertion, deletion algorithms, circular Queue.	04	15
				03	
				02	
				02	
				04	
3	Feb	UNIT-III	Tree : Binary, Binary search tree, tree Traversing : inorder, preorder and postorder, sorting and searching Techniques : Bubble sort, insertion sort and selection sort, linear search, Binary search.	04	15
				03	
				03	
				02	
				03	
4	Feb March	UNIT-IV	Function : Definition, prototype, local & global variable, function parameter, function calling and return, return values and their types, function recursion Arrays : Declaration and initialization of one and two dimensional arrays, function with array.	04	15
				03	
				02	
				02	
				04	
5	March	UNIT-V	String Handling : Declaring and initialization of string variable	04	15

			, operations on string : String copy comparison, concatenation. Pointers : Declaration and initialization, pointer and address arithmetic , Pointer comparison, Pointer and array.	03 03 02 03	
6	April	UNIT-VI	:Structure : Definition and declaration , initialization, array of structure , nested structure Union File Handing : Definition and opening a file, closing a file , I/O Operations on file :	04 03 02 02 04	15

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Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2020-21

B.Sc.-IInd Semester-IIIrd

Paper-Object-Oriented Programming with C++ and Web Technology

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit I :	Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants	04 03 03 02 03	15
2	July Aug	Unit II :	Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do..while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading	04 03 02 02 04	15
3	Aug	Unit III :	Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.	04 03 03 02 03	15

4	Sept	Unit-IV	Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model	04 03 02 02 04	15
5	Sept	Unit V	HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes < HTML >, < HEAD >, < TITLE >, < BODY >, < P >, < Br >, < HR >, Heading tags, table tags,, < IMG>, , , < MARQUEE>,< BLOCKQUOTE >, < A >, < I >, < B >, list tag, Attributes : allign, background colour, text color	04 03 03 02 03	15
6	Oct	Unit VI	Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS stylesheet properties : Units, classes and ID attributes. Properties : Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.	04 03 02 02 04	15

Name & Sign of Teacher

Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science
Teaching Plan Session-2020-21
B.Sc.-IInd Semester-IVth

Paper - Advanced C++ and Web Designing

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit I :	Arrays and Pointers : one-dimentional, two-dimentional arrays, Defining Pointers, arrays of objects, Pointer to objects, this pointer operator overloading : Defining operator overloading, overloading arrays, Binary, and assignment operators, rules for overloading operators.	04 03 03 02 03	15
2	Jan	Unit II :	Inheritance : Introduction, derived classes, Single inheritance, multiple inheritance, Hierarchical and Hybrid inheritance. Templates : Function, class, members and Function templets.	04 03 02 02 04	15
3	Feb	Unit III :	: Virtual Functions and Polymorphism :- Introduction, Pointers to derived class, dynamic binding, defination of Virtual Function, pure Virtual Functions, Rules For Virtual Functions. Working with Files : Introduction, Hierarchy of File Stream Classes, opening and closing of Files, File modes, File pointers and their manipulations, File Input/Output with Fstream class	04 04 03 04	15

4	Feb March	Unit IV :	Introduction to XML : History of Markup languages, features of XML, Simple XML document, logical structure of XML elements, Components of XML documents : The document prolog and document instance. CSS with XML.	04 03 03 02 03	15
5	March	Unit V :	Document type Defination (DTD): Introduction, need of DTD, declaring elements, element content models, declaring attributes, attribute types : internal and external DTD, entities and their types	04 03 02 02 04	15
6	April	Unit VI :	XML Schemas : Introduction, features, Comparison with DTD, Schema elements, element type element attributes, XML schema data types, converting DTD to schema, Namespaces : Introduction, declaration, default & prefit namespaces, scope of namespaces collusion & Applications	04 03 03 02 03	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2020-21
B.Sc.-IIIrd Semester-Vth
Paper- RDBMS AND VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary	04	15
			Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.	03 02 04	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 04 03 04	15
3	Sept	Unit III :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING;	04 03 03 02 03	15
4		unit IV :	: Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window; Managing Control : Form properties, pointer tool, label control, text box, command button, picture box, image	04 03 02 02 04	15
5	Sept	Unit V :	Creating Menus : Application wizard for menu, menu editor,	04	15

			creating menu, adding code to menus, data types & variables. Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto do loop, for loop, nested for loop	03 03 02 03	
6	Oct	Unit VI :	Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option butto	04 03 02 02 04	15
			VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments		

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2020-21

B.Sc.-IIIrdSemester-VIth

Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	: Data Integrity, types of integrity constants. Functions : Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP	04 03 03 02 03	15
			. Character Function : INITCAP, LOWER, UPPER, INSTR LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDEX, DECODE. Joins and Unions : Self, equi and outer join, unions and intersection		
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 03 02 02 04	15
3	Sept	Unit III :	Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks	04 04 03 04	15
4		unit IV :	Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box, producing the open dialog boxes, producing file save dialog boxes, producing the print dialog boxes. Mouse and Control	04 03 03 02 03	15

			: Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes		
5	Sept	Unit V :	: Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms	04 03 03 02 03	15
6	Oct	Unit VI :	: Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement, working with random access file, put statement, get statement, defining user defined data types, file control, file related commands	04 03 02 02 04	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2021-22

B.Sc.-Ist Semester-Ist

1S : Computer Science or Computer Application or Information Technology
Paper-I Computer Fundamentals and C Programming

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	July	UNIT-I : Introduction to Computers	Characteristics, classification of Computers, block diagram of computer, memory and their types: Primary and secondary memory . Peripheral devices : Keyboard, mouse, scanner, printers : Impact, Non-impact, DMP, inkjet , Laser.	04 03 03 02 03	15
2	July - Aug	UNIT-II : Introduction to OS :	DOS : Booting process, formatting, directory structure, FAT. Internal DOS commands : REN, CD, MD,RD, DIR, DEL, COPY, TYPE, DATE, TIME, COPYCON, PROMPT External commands: FORMAT , XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC. BAT, CONFIG.SYS Windows : Introduction, features, Windows Explorer Number system : Decimal, binary, octal, hexadecimal and their conversions, ASCII Code.	04 04 03 04	15
3		UNIT-III : Introduction to Internet :	Direct, Types of Internet connection: Direct dial-up, broadband, Internet protocol : TCP/IP, FTP, HTTP, Domain name e-mail address, WWW, web browser : Internet Explorer. Netscape navigator, search engines.	04 03 03 02 03	15

4	UNIT-IV : Programming Concept :	Algorithm flowcharting programming languages, assembler, interpreter, compiler programming process : program design, coding compilation, Execution, testing, debugging documentation structured programming : features and approaches	04 03 03 02 02	15
5	UNIT-V : Elements of C	: Introduction to C, History, features structure of C program, header file, character set, keywords, identifiers, constants, variables, basic data types, symbolic constants, typedef operators & Expressions : Arithmetic, Relational, logical assignment, Increment and decrement, precedence of operators.	04 03 04 04	15
6	UNIT- VI : I/O Operations :	Formatted I/O : Printf () , Scanf () , Unformatted I/O : getch () , getche () , getchar () , putch () , putche () , putchar () , gets () , Puts () , Controal structure : if , if... else, nested if, conditional operator , switch, goto, for, while, do..while, nesting of loops, break, continue.	04 03 03 02 03	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of Computer Science

Teaching Plan Session-2021-22

B.Sc.-Ist Semester-IInd

Paper - Computer Application or Information Technology Data Structure and Advance C

Sr. No.	Month	Name of Unit	Topics Names	Required Lecture	Total Lects.
1	Dec- Jan-	UNIT-I :	Introduction to Data structure, type of data structures, list, array, stack and Queue; Algorithms of traversing, insertion and deletion operation on it.	04	15
				03	
				03	
				02	
				03	
2	Jan	UNIT-II	: Linked list & its implementation, traversing, insertion, deletion algorithms, circular Queue.	04	15
				04	
				03	
				02	
				02	
3	Feb	UNIT-III	Tree : Binary, Binary search tree, tree Traversing : inorder, preorder and postorder, sorting and searching Techniques : Bubble sort, insertion sort and selection sort, linear search, Binary search.	04	15
				03	
				03	
				02	
				03	
4	Feb March	UNIT-IV	Function : Definition, prototype, local & global variable, function parameter, function calling and return, return values and their types, function recursion Arrays : Declaration and initialization of one and two dimensional arrays, function with array.	04	15
				04	
				03	
				02	
				02	

5	March	UNIT-V	String Handling : Declaring and initialization of string variable , operations on string : String copy comparison, concatenation. Pointers : Declaration and initialization, pointer and address arithmetic , Pointer comparison, Pointer and array.	04 03 03 02 03	15
6	April	UNIT-VI	:Structure : Definition and declaration , initialization, array of structure , nested structure Union File Handling : Definition and opening a file, closing a file , I/O Operations on file :	04 03 03 02 03	15

Name & Sign of Teacher

Amrut Sevabhavi Sanstha's Parbhani

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2021-22

B.Sc.-IInd Semester-IIIrd

Paper-Object-Oriented Programming with C++ and Web Technology

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit I :	Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants	04 03 04 02 02	15
2	July Aug	Unit II :	Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do..while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading	04 03 03 02 03	15
3	Aug	Unit III :	Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.	04 03 03 02 03	15

4	Sept	Unit-IV	Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model	04 03 04 02 02	15
5	Sept	Unit V	HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes < HTML >, < HEAD >, < TITLE >, < BODY >, < P >, < Br >, < HR >, Heading tags, table tags,, < IMG>, , , < MARQUEE>,< BLOCKQUOTE >, < A >, < I >, < B >, list tag, Attributes : allign, background colour, text color	04 04 03 02 02	15
6	Oct	Unit VI	Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS stylesheet properties : Units, classes and ID attributes. Properties : Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.	04 03 02 04 02	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2021-22

B.Sc.-IInd Semester-IVth

Paper - Advanced C++ and Web Designing

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	Dec-17 Jan-18	Unit I :	Arrays and Pointers : one-dimensional, two-dimensional arrays, Defining Pointers, arrays of objects, Pointer to objects, this pointer operator overloading : Defining operator overloading, overloading arrays, Binary, and assignment operators, rules for overloading operators.	04 03 03 02 03	15
2	Jan	Unit II :	Inheritance : Introduction, derived classes, Single inheritance, multiple inheritance, Hierarchical and Hybrid inheritance. Templates : Function, class, members and Function templets.	04 03 03 02 03	15
3	Feb	Unit III :	: Virtual Functions and Polymorphism :- Introduction, Pointers to derived class, dynamic binding, defination of Virtual Function, pure Virtual Functions, Rules For Virtual Functions. Working with Files : Introduction, Hierarchy of File Stream Classes, opening and closing of Files, File modes, File pointers and their manipulations, File Input/Output with Fstream class	04 03 02 02 04	15
4	Feb March	Unit IV :	Introduction to XML : History of Markup languages, features of XML, Simple XML document, logical structure of XML elements, Components of XML documents : The document prolog and document instance. CSS with XML.	04 03 03 02 03	15
5	March	Unit V :	Document type Defination (DTD): Introduction, need of DTD, declaring elements, element content models, declaring attributes, attribute types : internal and external DTD,	04 04	15

			entities and their types	03 04	
6	April	Unit VI :	XML Schemas : Introduction, features, Comparison with DTD, Schema elements, element type element attributes, XML schema data types, converting DTD to schema, Namespaces : Introduction, declaration, default & prefix namespaces, scope of namespaces collusion & Applications	04 03 03 02 03	15

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2021-22
B.Sc.-IIIrd Semester-Vth
Paper- RDBMS AND VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	Fundamental of DBMS : Architecture of a database system,, data independence, database models; Relational Hierarchical, network; data dictionary	04	15
			Relational Model : Relations, Domains and Attributes keys, E-R diagrams, Reducing E-R diagrams to tables, function dependency, Normalization Process, Normal forms : 1NF, 2NF, 3NF, 4NF, BCNF.	04	
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04	15
				03	
3	Sept	Unit III :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING;	03	15
				02	
4		unit IV :	: Introduction to Visual Basic : Visual programming, event driven programming, VB Environment : New Project window, property window, Form layout window, toolbar, menu bar, tool box, form window; Managing Control : Form properties, pointer tool, label control, text box, command button, picture box, image	04	15
				04	
5	Sept	Unit V :	Creating Menus : Application wizard for menu, menu editor, creating menu, adding code to menus, data types &	03	15
				04	

			variables. Operators : Conditional operators, logical operators, control structures : If-else, Nested If—else, select case, goto do loop, for loop, nested for loop	03 02 03	
6	Oct	Unit VI :	Introduction to Internal Functions : MsgBox(), named constant, default buttons, specifying icons. Input box(), title, caption; using check box and option butto	04 04 03 04	15
			VB Programmes : Private and public procedure, passing data by reference and value, passing control as arguments		

Name & Sign of Teacher

Late Ku. Durga K. Banmeru Science College, Lonar Dist- Buldana
Department of computer science

Teaching Plan Session-2021-22

B.Sc.-IIIrdSemester-VIth

Paper -PL/SQL AND ADVANCED VISUAL BASIC

Sr. No.	Month	Name of Unit	Topics Names	Requ. Lecture	Total Lects
1	July	Unit-I :	: Data Integrity, types of integrity constants. Functions : Number Functions - AVG, MAX, MIN, SUM, COUNT, TO-NUMBER, GREATEST, LEAST, ABS, MOD, FLOOR, CEIL, TRUNC, SQRT, SIGN, SIN, COS, LOG, EXP	04 03 03 02 03	15
			. Character Function : INITCAP, LOWER, UPPER, INSTR LENGTH, LTRIM, RTRIM, LPAD, RPAD, SOUNDEX, DECODE. Joins and Unions : Self, equi and outer join, unions and intersection		
2	July Aug	Unit-II :	Introduction to SQL : Components of SQL, data types, operators, DDL Commands : CREATE, ALTER, DROP, for tables & views. DML Commands : SELECT, INSERT, DELETE & UPDATE; Clauses : ORDER BY, GROUP BY and HAVING	04 04 03 04	15
3	Sept	Unit III :	Securities of Database : Users, creating users, roles, creating roles, types of privileges, GRANT and REVOKE command, data locks	04 03 03 02 03	15
4		unit IV :	Dialog Box Control : Need for dialog box control, adding the dialog box control, producing the color dialog box control, handling the cancel button, producing the font dialog box, producing the open dialog boxes, producing file save dialog boxes, producing the print dialog boxes. Mouse and Control	04 04 03 04	15

			: Mouse response, list box controls, combo box control, timer control, working with arrays, declaring arrays, multiple list boxes		
5	Sept	Unit V :	: Working with Forms : Form collections, accessing the form collection using the subscripts, the count property, uploading forms, placing text on forms, format with print, positioning the print method, multiple forms, placing tool bars on forms	04 03 03 02 03	15
6	Oct	Unit VI :	: Working with Files : Open statement, file modes, locking the file, close statement, working with sequential access file, print# statement, input# statement, write# statement, working with random access file, put statement, get statement, defining user defined data types, file control, file related commands	04 04 03 04	15

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