



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Shaikh.Y.S

Department: Computer Science

Program: B.Sc. Ist Year.(Sem- I)

Subject: Computer Science(Optional)

Course Code: I

Paper Title: Problem Solving Using Computers

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Computer Fundamentals	Introduction to Computers, Block Diagram of computer, Characteristics of Computers, I/O Devices, I/O Ports.	In this unit students will get fundamental information about the computers including I/O devices and I/O ports.
Unit-2	Problem Solving Aspects	Introduction to algorithm, Top Down Designing Implementation of Algorithm, Analysis of algorithm, Flowchart , Principals of flowchart, Flowcharts symbol.	In this unit student will get basic understanding about algorithm, also get knowledge about implementation & analysis of algorithm.
Unit-3	Fundamentals of Algorithms	Exchanging value of variables, counting numbers, summation of set of numbers, Factorial computations, Fibonacci numbers, reverse of digits.	In this unit student will learn how to create algorithms for different problems like factorial computations, Fibonacci numbers.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-4	Factoring Methods	Finding square root of numbers, smallest divisor of integers, greatest common divisor, generation of prime numbers, prime factor.	In this unit students will learn the factoring methods.
Unit-5	Array Techniques	Introduction to array, types of array, Memory Representation of array, Reverse of Array, Array Counting, Finding Maximum And Minimum Elements From Array.	In this unit students will get knowledge about concept of arrays and types of the array and they will know how the array works.
Unit-6	Searching And Sorting Techniques	Searching Techniques, Linear Search, Binary Search, Sorting Techniques-bubble sort, selection sort.	In this unit student will learn the different searching techniques like binary search and sorting techniques like bubble sort, selection sort.

Specify Course Outcome:

- 1) In this course student will get fundamental knowledge of computers.
- 2) Student will also learn arrays, concept of algorithm, flowcharts.
- 3) Student will learn different searching and sorting techniques.

Specify Program Outcome:

- 1) In this program student will learn hypertext markup language.
- 2) Student will also learn C language.
- 3) Student will be able to create web pages using different tags.
- 4) student will also be able to write the simple C programs using different functions, looping and decision control statements etc.
- 5) In this program student will also get the knowledge of algorithm and flowcharts, also they will get knowledge about different data structures like linked list, graph, tree, stack and queue.
- 6) Student will also learn concept of algorithms, flowcharts, different searching and sorting techniques.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher : Miss.Khare Manali

Department: Computer Science

Program: B.Sc. Ist year.(Sem-I)

Subject: Computer Science(Optional)

Course Code: II

Paper Title : Web Page Designing Through HTML

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Introduction to Web and Website	Introduction to Internet, Application and importance of Internet, WWW, URL, Web Browsers, web Server, Objectives of website, basic interface design, developing storyboard for website, Navigation and links within website, checklist for designing.	In this unit students will get the basic understanding about internet ,WWW, websites, web browsers.
Unit-2	Introduction to HTML	Introduction to HTML, Basic elements, List- ordered/Numbered list, Unordered/Bulleter list, Definition list, Linking HTML pages, linking to URL, Text Formatting, Text Alignment, Character Styles, Fonts and Font Sizes, using colors for the Web, preformatted text, Horizontal line, line break, Displaying special characters.	In this unit students learnt the basics of HTML languages. They will get information about different tags that are used in html program, students will also learnt basic structure of HTML Documents.



Unit-3	Images in HTML	Images in HTML pages, embedding inline images and external images, images and text alignment, images and links, alternative tags for images, using image as a background, Displaying images with heights and width dimensions, images preview, image for the web, reducing file size of image file, decreasing the file size by reducing the color depth of image file.	In this lesson students will learn how to embed images in webpages, students will also learn how to used the attributes of image tag.
Unit-4	Tables in HTML	Introduction to tables, features of tables, Tables in HTML, components of table, creating table, table cell and border, table and cell color.	In this unit student will learn how to create table in webpages using table tag. And students will also able to used different attributes of table tag.
Unit-5	Frames, Image Maps	Introduction to Frames, Creating Frames, Frames attributes and linking of frames, complex framesets, Inline frames.	In this unit student will learn how to create frames in webpages, students will also able to used attributes of frame tag.
Unit-6	Forms and CGI Scripts	Introduction to forms, form design, text input fields, radio buttons, check box buttons, and submit buttons, additional layout features.	In this unit student will learn to create forms on the webpage using forms tag. student also able to use different elements in the forms.

Specify Course Outcome:

- 1) In this course students will learn hypertext markup language.
- 2) Student will learn to design web pages using different tags of HTML.
- 3) Student will be able to embed images, tables in webpages.
- 4) Student will learn how to create forms on webpages using different HTML tags.



Specify Program Outcome:

- 1) In this program student will learn hypertext markup language.
- 2) Student will also learn C language.
- 3) Student will be able to create web pages using different tags.
- 4) student will also be able to write the simple C programs using different functions, looping and decision control statements etc.
- 5) In this program student will also get the knowledge of algorithm and flowcharts, also they will get knowledge about different data structures like linked list, graph, tree, stack and queue.
- 6) Student will also learn concept of algorithms, flowcharts, different searching and sorting techniques.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss. Khare Manali

Department: Computer Science

Program: B.Sc. I st Year.(Sem-II)

Subject: Computer Science(Optional)

Course Code: III

Paper Title: Programming in C

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Introduction to C	Introduction, Character set, C tokens, Datatypes, constants, variables, declaration of storage class, Input/output statement ,operators, Hierarchy of operation, Structure of C program.	In this unit students will get basic understanding about programming and students will also learn the structure of C programs.
Unit-2	The Decision and looping ,control structure	If Statement, If-Else Statement, Nesting of If-Else, else-if ladder, Switch statement, Goto, While Loop, Do-While loop ,For loop.	In this unit students will get knowledge about looping statements and decision making statements.
Unit-3	Arrays and Pointers	Introduction to array, One-dimensional arrays: Declaration and Initialization, Two-dimensional arrays: Declaration and initialization, Multi-dimensional arrays Introduction, understanding pointers, Accessing address of variable, declaring pointer variables, initialization of pointer variables.	In this unit students will learn the concept of arrays like declaration and initialization of arrays, student will also get the basic understanding about pointers.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-4	Storage Classes	Automatic, Register ,Static, Scope rules.	In this lesson students will learn the concept of storage classes.
Unit-5	Functions	Introduction, Definition of function, return values and their types, function calls, function declaration, recursion, passing arrays to functions ,what are string, Standard Library String functions: strlen(), strcmp() ,strcat().	In this lesson student will understand concept of function, they will know how function works, how to call and defined the particular function.
Unit-6	Structure and Union	Introduction, defining a structure, defining a structure variable, accessing structure members, initialization of structure, structure within structure ,union ,Introduction to File Handling.	In this unit student will understand the concept of union and structure, student will also understand how to define it.

Specify Course Outcome:

- 1) In this course student will learn basic structure of C program.
- 2) Student will be able to write simple C programs using concept of functions, arrays and pointers, structure and union and decision control and looping control statements.

Specify Program Outcome:

- 1) In this program student will learn hypertext markup language.
- 2) Student will also learn C language.
- 3) Student will be able to create web pages using different tags.
- 4) student will also be able to write the simple C programs using different functions, looping and decision control statements etc.
- 5) In this program student will also get the knowledge of algorithm and flowcharts, also they will get knowledge about different data structures like linked list, graph, tree, stack and queue.
- 6) Student will also learn concept of algorithms, flowcharts, different searching and sorting techniques.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss.Shetty Sneha.S

Department: Computer Science

Program: B.Sc. I st Year(Sem-II)

Subject: Computer Science (Optional)

Course Code: IV

Paper Title: Analysis of Algorithm and Data Structure.

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Role of Algorithms In Computing	Introduction, algorithms as a technology, designing algorithm, divide and conquer technique/Approach.	In this unit students will get basic understanding of algorithm also learn the divide and conquer technique.
Unit-2	Introduction to Data Structure	Introduction, Elementary data organization, data structure operations, mathematical notations and functions, Algorithmic notations, control structure.	In this unit student will get basic understanding of data structure, different data structure operations.
Unit-3	Linked List	Introduction ,Representation of link list in memory ,Traversing ,searching, unsorted link list, Inserting after given node, deleting node with a given item of information.	In this unit student will get detailed knowledge about link list and different operation performed on linked list.



Unit-4	Stack and Queue	Introduction, Memory Representation of stack, insert element in Stack_PUSH, Delete element From Stack_POP. Queue: Introduction, Memory representation ,insertion & delete operation.	In this unit students will get knowledge about stack and queue and also get knowledge about its operations like Stack_PUSH, Stack_POP .
Unit-5	Trees	Introduction, Binary tree& its memory representation, Insertion &deletion of nodes in binary tree, Threaded binary tree.	In this unit students will get knowledge about concept of trees, and its operations and memory representation.
Unit-6	Graphs	Introduction, Memory Representation of graphs, types of graphs, Warshall's Algorithm.	In this unit students will get knowledge about graphs along with their types & also will learn Warshall's Algorithm.

Specify Course Outcome:

- 1) In this course student will learn different data structures like linked list, graphs, tree, stack, queue.
- 2) student will also learn operations of data structures. student will also learn the divide and conquer technique and Warshall's Algorithm.

Specify Program Outcome:

- 1) In this program student will learn hypertext markup language.
- 2) Student will also learn C language.
- 3) Student will be able to create web pages using different tags.
- 4) student will also be able to write the simple C programs using different functions, looping and decision control statements etc.
- 5) In this program student will also get the knowledge of algorithm and flowcharts, also they will get knowledge about different data structures like linked list, graph, tree, stack and queue.
- 6) Student will also learn concept of algorithms, flowcharts, different searching and sorting techniques.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss. Khare Manali

Department: Computer Science

Program: B.Sc. IInd Year(Sem-III) Subject: Computer Science(Optional)

Course Code: VI

Paper Title: Operating System

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Overview of Operating System.	Introduction, what operating system Do Computer system organization, computer-system Architecture, special purpose systems, operating system structure, operating system operations, process management, memory management, storage management, protection and security, Distributed system, computing Environment.	In this unit student will get basic understanding about operating system and structure of operating system, students will also get basic understanding about process management, memory management, storage management.
Unit-2	Exploring operating system	Operating system services, user operating system interface, system calls ,types of system calls, system programs, operating system design and implementation, operating system structure, virtual machines, operating system Generation ,System Boot.	In this unit student will get knowledge about system calls ,and also understand which system calls used for which operations.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Process and Threads	Process Concept, Process scheduling, operations on processes, inter-process communication, ,Example of IPC Systems, Communication in Client-Server System, Overview of Threads, Multithreading Models.	In this unit student will understand the detailed knowledge about process, the different states of process, scheduling of process, student will also understand concept of thread and multithreading models.
Unit-4	Memory	Background, Swapping, Contiguous Memory allocation, Paging, Structure of page table, Segmentation ,virtual memory.	In this unit student will understand memory management techniques likes paging, segmentation, students will also understand the concept of swapping.
Unit-5	File system	File concepts, Access methods, Directory Structure, File-system mounting, File Sharing, Protection, File-System Structure.	In this unit student will understand the concept of file system mounting and file system structure.
Unit-6	Protection in operating system	Goals of protection, Principles of Protection, Access Matrix, implementation of access control, Revocation of access rights, capability –based systems, Language-based protection.	In this unit student will understand the concept of protection in operating system,access matrix, implementation of access controls.

Specify Course Outcome:

- 1) In this course students will get detailed knowledge about operating systems.
- 2) Student will learn how operating systems works internally.
- 3) Student will learn the different techniques of memory management, process management. So that CPU will be utilized most, also memory will be used efficiently.



Specify Program Outcome:

- 1) In this program students will learn C++ and JAVA language.
- 2) Student will be able to write the simple programs in C++ and JAVA using different concept in programming languages like looping and decision control statements, functions.
- 3) In this program students will also get knowledge about operating systems and computer network. Student will get knowledge how operating system work internally, how it uses different technique of memory management to manage main memory so that memory and CPU can be used efficiently.
- 4) Students will also get knowledge about computer network like different transmission media, concept of topology etc.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss.Shetty Sneha.S

Department: Computer Science.

Program: B.Sc. IInd Year. (Sem-III) Subject: Computer Science(Optional)

Course Code: VII

Paper Title: Object Oriented Programming Using C++

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Object Oriented Programming & C++	Object Oriented Programming Paradigm, Basic Concepts Of OOP, Benefits of OOP, Object Oriented Languages, Applications of OOP, A simple C++ Programs, More C++ Statements, Structure of C++ Programs.	In this unit student will understand the OOPs concepts, students will learn the structure of C++ and also they will be able to write the simple C++ programs.
Unit-2	Basics of C++	Introduction, Tokens, Keywords, Identifiers and Constants, Basic Data Types, User-Defined Data Types, Derived Data Types, Variables: Declaration & Dynamic Initialization, Reference Variables, Operators in C++: Scope Resolution, Manipulators, Operator Precedence, Decision Control & loop Control Structures: If, If-Else, Nested If, Else-If Ladder, Switch, Go to, Break Statement, While, Do-While, For.	In this unit student will understand basics of C++ program like tokens, datatype, Concept of Variables, reference variables. Student will also learn looping statements, Decision control statements.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Functions in C++	Introduction, Function Prototyping, Call by Value & Call by Reference, Inline Function, default arguments, Function Overloading, Library Functions.	In this unit student will learn the concept of functions, Function overloading.
Unit-4	Classes & Constructors in C++	Introduction, Structures, specifying a Class, Defining Member Functions, Memory allocation for objects, Static data members, Static Member Functions, Object as Function arguments, Friend Functions. Introduction to Constructors, Parameterized Constructors, Copy Constructors, Multiple Constructors in a class, destructors.	In this unit student will learn Concept of classes, Member functions, Student will also learn how to defined the member functions constructor and destructors.
Unit-5	Operator Overloading	Introduction, Defining Operator Overloading, Unary Operators, Overloading Binary Operators, Overloading Binary operator Using Friend, for Overloading Operators.	In this unit student will learn operators, friend function ,also learn concept of operator overloading.
Unit-6	Inheritance in C++	Introduction, Defining Derived Classes, Single Inheritance, Multilevel Inheritance, Multiple Inheritance, Hierarchical Inheritance, hybrid Inheritance, Virtual Base Classes, Abstract Classes.	In this unit student will learn inheritance, derived classes, student will learn how class can be derived from base class.

Specify Course Outcome:

- 1) In this Course students will learn the C++ language.
- 2) student also learn structure of C program, student will able to write c++ programs using different concepts like function overloading, operator overloading, concept of constructor and destructor.



Specify Program Outcome:

- 1) In this program students will learn C++ and JAVA language.
- 2) Student will be able to write the simple programs in C++ and JAVA using different concept in programming languages like looping and decision control statements, functions.
- 3) In this program students will also get knowledge about operating systems. Student will get knowledge how operating system work internally, how it uses different technique of memory management
- 4) Students will also get knowledge about computer network like different transmission media, concept of topology etc.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss.Khare Manali

Department: Computer Science

Program: B.Sc. IInd Year. (Sem-IV) Subject: Computer Science(Optional)

Course Code: VIII

Paper Title: Computer Networks

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Introduction to network	Definition & Applications of Computer Network, Data Transmission Modes, Protocol Hierarchies Design issues for layers, connection oriented connectionless services, Service Primitives ,Network Models-OSI/ISO Reference Model &TCP/IP model.	In this unit student will get basic understanding about computer network, also get knowledge about different modes through which data can transmit. Student will also study the network models.
Unit-2	Network Hardware	Network Topologies, Network Devices-NIC Cards, Hub, Switch, Bridges, Wireless Access points, Router, Gateways ,Modems, ISDN Terminal Adaptor, Repeater, Types of Networks.	In this unit student will understand the concept of network topology, Hub, Switch, Bridges.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Transmission media	Magnetic Media, Twisted Pair, Co-axial Cable, Fiber Optics, Radio Transmission, Wireless Transmission, Bluetooth.	In this lesson student will understand transmission media like co-axial cable, fiber optics, Bluetooth.
Unit-4	Telephone system	Structure of Telephone System, Transmission & switching, Trunks & multiplexing, Types of Switching, Introduction to mobile telephone system.	In this unit student will understand the concept of structure of telephone system, multiplexing.
Unit-5	Internetworking protocol	Network Protocols, Email Architecture, Web server, Browsers, Domain Name System, IP Protocol, Addresses, IPv6, Introduction to Wi-Fi & \$G Technology.	In this unit student will understand the concept of network protocols, web browsers, web servers, E-mail architecture.
Unit-6	Network Security & Cryptography	Introduction to Security & Cryptography, Security concepts-Computer Security, Network Security, Information Security, Firewall, Working Of firewalls, Conventional Cryptography ,Caesar's Cipher, Public key Cryptography.	In this unit student will understand the concept of cryptography, firewalls, so they will understand how information is protected using keys from unauthorized person.

Specify Course Outcome:

- 1) In this course students will get knowledge about computer networks, types of networks,
- 2) also get knowledge about different types of transmission media like fiber optics, co-axial cable, firewalls
- 3) student also learns the concept of cryptography in which student will learn how information is being protected from unauthorized person.



Specify Program Outcome:

- 1) In this program students will learn C++ and JAVA language.
- 2) Student will be able to write the simple programs in C++ and JAVA using different concept in programming languages like looping and decision control statements, functions.
- 3) In this program students will also get knowledge about operating systems and computer network. Student will get knowledge how operating system work internally, how it uses different technique of memory management to manage main memory so that memory and CPU can be used efficiently.
- 4) Students will also get knowledge about computer network like different transmission media, concept of topology etc.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Shaikh Y.S

Department: Computer Science

Program: B.Sc. IInd Year. (Sem-IV) Subject: Computer Science(Optional)

Course Code: IX

Paper Title: Programming in Java

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Java Evolution	Java History, Java Features, How Java Differs from C and C++, Java and Internet, Java & WWW, Web Browsers, Java Support Systems, Java Environment.	In this unit student will get understanding about java and also can differ it from C and C++.
Unit-2	Overview of Java	Introduction, simple java program, more JAVA Statements, An Application with two classes, java program structure, implementation of a java program, Java Virtual Machine, Command Line Arguments. Java Tokens, Constants, Variables, Data Types, Declaration of variables, Giving Values to Variables, Scope of Variables, Symbolic Constants, Type Casting, Getting Values of Variables, Standard Default Values, Java Statements.	In this lesson student will understand java statements, Implementation of java program, basic token used in java and its data types.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Classes, Objects & methods	Introduction, Defining a Class, Adding variables, Adding Methods ,Creating Objects ,Accessing Class Members, Constructor, Method Overloading ,Static Members, Nesting of Methods, Inheritance: Extending a Class, Overriding Method, Final Variable And Methods.	In this lesson student will understand how to define class, how to access class members, method overloading.
Unit-4	Interfaces- Multiple Inheritances	Introduction, Defining interface, Extending Interface, Implementing Interface, accessing Interface Variables.	In this unit student will understand how to define interface, how to implement and extending interface.
Unit-5	Array And Strings	Introduction ,One-Dimensional Arrays, Creating an One-Dimensional Array, Two Dimensional Arrays, Creating an Two dimensional Array, String Array, String Method.	In this lesson student will understand the concept of array and types of array. Student will also studied the concept of strings.
Unit-6	Packages And Applets	Introduction, Java API Package, Using System Packages, Naming Conventions, Creating Packages, accessing a package, using a package, Adding a class to a package. Introduction, how applets differ from applications, preparing to write applets, building applet code, applet life cycle.	In this unit student will understand the concept of java API package, creating package.



Specify Course Outcome:

- 1) In this course students will learn the JAVA language.
- 2) student will also learn the structure of java programs.
- 3) Student will be able to write simple java programs using different concepts like arrays and pointers, interfaces, looping and decision control statements.

Specify Program Outcome:

- 1) In this program students will learn C++ and JAVA language
- 2) Student will be able to write the simple programs in C++ and JAVA using different concept programming languages like looping and decision control statements, functions.
- 3) In this program students will also get knowledge about operating systems and computer network. Student will get knowledge how operating system work internally, how it uses different technique of memory management to manage main memory so that memory and CPU can be used efficiently.
- 4) Students will also get knowledge about computer network like different transmission media, concept of topology etc.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

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Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss. Shetty Sneha.S

Department: Computer Science

Program: B.Sc. IIIrd Year(Sem-V) Subject: Computer Science(Optional)

Course Code: XII

Paper Title: Software Engineering

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	The Nature of Software & Software Engineering	The Nature of Software, The Changing Nature of Software, Defining the Discipline, Software Engineering Process, Software Engineering Practice, Software Myths.	In this unit student will learn changing nature of software and student will also learn the basic understanding of software engineering process.
Unit-2	Software Process Structure & Models	A Generic process model, Defining a Framework Activity, Process patterns ,Process Assessment &Improvement, Prescriptive process models, Personal & team process models.	In this unit student will learn different models they will learn how to use the different models in software engineering process



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Agility development & Human Aspects	Introduction to agility ,Agility and cost change, Agility principles, Extreme Programming, Characteristics of Software engineer Psychology of Software engineering, Software team Structures.	In this unit student will learn the concept of agility also learn the psychology of software engineering.
Unit-4	Understanding Requirements & Design Concepts	Requirement engineering, Building the analysis, Design within the context of Software engineering, The design process, Design model, Software Architecture, Element of quality assurance, Software Testing Fundamentals.	In this unit student will understand the concept of requirement engineering also learn the elements of quality assurance and student will understand how software get tested.

Specify Course Outcome:

- 1) In this course student will learn exact process of software engineering.
- 2) Student will learn the different stages required to developed any software's.
- 3) student will also learn the concept of quality assurance and testing process of software.

Specify Program Outcome:

- 1) In this program students will learn the Visual Basic language.
- 2) Student will also learn the Database management system (DBMS) and able to use different queries of SQL like select, where, from etc.
- 3) Student will able to write the programs in Visual basic also able to create forms in visual basics using different controls.
- 4) In this program students will get knowledge about e-commerce and software engineering.
- 5) Student will know how to developed software's.
- 6) Student will learn the different steps in software engineering.
- 7) Student will learn the different models used in Software engineering.
- 8) Student will learn the concept of quality assurance and testing process of software engineering.
- 9) Student will learn the concept of E-Commerce.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Shaikh .Y.S

Department: Computer Science

Program: B.Sc. IIIrd Year (Sem-V) Subject: Computer Science(Optional)

Course Code: XIII[A]

Paper Title: Visual Programming

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Getting Started With VB	The IDE, The elements of user interface, Designing user interface, Programming an Application Visual Development and Event Driven Programming.	In this unit students will study how to design user interface, students will also study the elements used in interface.
Unit-2	Visual Basic The Language	Variables, Constants, operators, data types, arrays, collections, procedures, control flow and loop Statements.	In this unit student will learn the different datatypes used in visual basics, students will also learn the other concepts like arrays ,operators, variables and they will also learn how to used decision control and looping structure in visual basics.



Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-3	Working With Forms	Form Types ,Appearance of forms, Form Properties, Designing Menu Structure, Building Dynamic forms at run time,Introduction to MDI forms.	In this unit student will learn forms types, different properties , they will also get knowledge about building dynamic form at run time.
Unit-4	Basic Active X Controls	Command Button,control-properties,Text Box control-propeties,List Box & Combo control-properties, Scroll Bar control-properties, Slider control-properties, Understanding Visual data manager.	In this unit student will learn different control like text box, list box, scroll bar , and properties of the control.

Specify Course Outcome:

- 1)In this course student will learn the Visual Basic language.
- 2) student will be able to create forms by using different controls.
- 3) student will also able to write the programs for the corresponding form.
- 4)Student will learn different properties of forms and controls. And will learn how to used it.

Specify Program Outcome:

- 1)In this program students will learn the Visual Basic language.
- 2)Student will also learn the Database management system (DBMS)and able to use different queries of SQL like select, where, from etc.
- 3)Student will able to write the programs in Visual basic also able to create forms in visual basics using different controls.
- 4) In this program students will get knowledge about e-commerce and software engineering.
- 5)Student will know how to developed software's.
- 6) Student will learn the different steps in software engineering.
- 7) Student will learn the different models used in Software engineering.
- 8)Student will learn the concept of quality assurance and testing process of software engineering.
- 9)Student will learn the concept of E-Commerce.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Shaikh Y.S

Department: Computer Science

Program: B.Sc. IIIrd year(Sem-VI)

Subject: Computer Science(Optional)

Course Code: XIV

Paper Title: Relational Database Management Systems & PL/SQL

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Introduction	Introduction to DBMS, Applications of DBMS, Data Models, Database Architecture, Database Users & Administrators, Entity, Attributes & Entity Set, Database Languages, DDL, DML, DCL	In this unit students will learn what is DBMS, its applications, also learn the concept of Entity, entity set and database languages.
Unit-2	Relational Algebra and Calculus	Introduction to Selection, Projection, Union and Joins, introduction to SQL, Basic SQL Query and Examples of SQL Queries :select, where, from, introduction to views, Aggregate operators Group by & Order by Clause.	In this unit student will learn the different queries like select, where, from, so students will be able to use this SQL queries.
Unit-3	Integrity Constraints	Introduction, Domain Constraints, Primary Key, Unique Key, Foreign Key.	In this unit student will learn what is primary key, unique key, foreign key.



Unit Number	Unit Name	Topics	Unit-Wise Outcomes
Unit-4	Introduction to PL/SQL	Introduction, Architecture of PL/SQL, Data Types, operators, Decision making and looping Statements, Simple PL/SQL programs, Introduction to Triggers.	In this unit students will understand the Architecture of PL/SQL, Different datatypes, operators, different decision control and looping statements. students will learn to write simple PL/SQL programs.

Specify Course Outcome:

- 1) In this course student will learn database management systems (DBMS)
- 2) Student will also learn the different SQL queries like select, where, from etc.
- 3) Student will learn architecture of PL/SQL.
- 4) Student will learn the concept of keys like primary key, unique key, foreign key.

Specify Program Outcome:

- 1) In this program students will learn the Visual Basic language.
- 2) Student will also learn the Database management system (DBMS) and able to use different queries of SQL like select, where, from etc.
- 3) Student will be able to write the programs in Visual basic also able to create forms in visual basics using different controls.
- 4) In this program students will get knowledge about e-commerce and software engineering.
- 5) Student will know how to develop software's.
- 6) Student will learn the different steps in software engineering.
- 7) Student will learn the different models used in Software engineering.
- 8) Student will learn the concept of quality assurance and testing process of software engineering.
- 9) Student will learn the concept of E-Commerce.

Signature of Teacher:



Dharmabad Shikshan Sanstha's

Lal Bahadur Shastri Mahavidyalaya, Dharmabad.431809

Pro-forma for program and course outcomes (2.6.1)

Name of Teacher: Miss.Shetty Sneha.S

Department: Computer Science

Program: B.Sc. IIIrd year(Sem-VI) Subject: Computer Science(Optional)

Course Code: XV[B]

Paper Title: E-Commerce

Unit Number	Unit Name	Topics	Unit-wise Outcome
Unit-1	Electronic Commerce	Introduction-Commerce types, Value Added Networks, Electronic Commerce over the internet.	In this unit student will understand the concept of e-commerce, value added networks.
Unit-2	Intranet	Introduction to intranet, Intranet services, Intranet Implementation.	In this unit student will learn the concept of intranet, what are the different services provided by intranet and its implementation.
Unit-3	Internet	Internet-Introduction, Internet Engineering Task Force, Internet Architecture Board, Internet Communication Protocols, internet Search Tools: Telnet, FTP, World Wide Web, gopher, HTTP, Concerns about Internet.	In this unit students will understand the basic understanding of internet, WWW, different protocols like HTTP, FTP.



Unit Number	Unit Name	Topics	Unit-wise Outcomes
Unit-4	Electronic Data Interchange	EDI Introduction, cost & Benefits of EDI, Components of EDI Systems: EDI Standards, EDI Software's, EDI Communication Networks, EAN systems, EAN/COM, Article Numbering system, Bar-coding, Serial Shipping Container Code & EAN label.	In this unit student will understand the concept of EDI, components of EDI, EDI standards cost and benefits of EDI.

Specify Course Outcome:

- 1) In this course students will get knowledge about e-commerce,.
- 2) Student will learn the concept of intranet.
- 3) student will learn the concept of internet, WWW.
- 4) Student will learn the concept of EDI System.
- 5) Student will learn different protocols like FTP.HTTP.

Specify Program Outcome:

- 1) In this program students will learn the Visual Basic language.
- 2) Student will also learn the Database management system (DBMS) and able to use different queries of SQL like select, where, from etc.
- 3) Student will be able to write the programs in Visual basic also able to create forms in visual basics using different controls.
- 4) In this program students will get knowledge about e-commerce and software engineering.
- 5) Student will know how to develop software's.
- 6) Student will learn the different steps in software engineering.
- 7) Student will learn the different models used in Software engineering.
- 8) Student will learn the concept of quality assurance and testing process of software engineering.
- 9) Student will learn the concept of E-Commerce.

Signature of Teacher: