SCHEME OF EXAMINATION

and

SYLLABUS
for

Diploma in
WEB DESIGNING

Offered by

Community College of Skill Development

J.C. Bose University of Science & Technology YMCA

Sector-6, Mathura Road, Faridabad,

Haryana, India

2022-23

ABOUT THE PROGRAM

Diploma in Web Designing is one year course where candidates learn about various aspects of designing a website. Web Designing is a skilled field in IT sectors. The diploma is designed in such a manner to offer sufficient knowledge and expertise to work on different software. The course equips students with different web designing languages and software's, tools to develop unique websites. This web designing diploma program covers both front-end and back-end web development topics, starting with client-side programming languages such as HTML, CSS, and JavaScript, then gradually advancing to object-oriented programming, and database design. This course is made for those students who wish to improve skills and want to be expertise in web designing. These programs are crafted in such a way that the students acquire skills, which will lead them to employment in the respective sector. These candidates become experts in their field and can enhance their skills more by opting for a higher degree.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO-1: To create theoretical and practical knowledge about core areas related to the field of web development and provides a judicious mix of skills relating to a profession and appropriate content of general education.

PEO-2: Ensures that the students have adequate knowledge and skills, so that they are work ready at each exit point of the programme.

PEO-3: To improve team building, team working and leadership skills of the students with high regard for ethical values and social responsibilities.

PEO- 4: To enable students to communicate effectively and efficiently.

PROGRAMME OUTCOMES (POs)

PO-1: Improve their computer literacy, their basic understanding of operative systems and working. Knowledge of software commonly used in academic and professional environments.

PO-2: Do Academic and Professional Presentations - Designing and delivering an effective presentation and developing the various IT skills to the electronic databases.

PO-3: Gain Analytical skills in the field of Computer Applications.

PO-4: Acquire the knowledge of the latest technologies in web development and future trends.

PO-5: Synthesize principles and theories of designing websites to different computing paradigms.

PO-6: Develop professional skills that prepare the students for employment and for life-long

learning in specific areas of web development and related fields.

PO-7: Bridge the potential skill gap identified between the Institution and Industry.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

1) Understand, analyze and develop computer programs in the areas related to web design.

2) The student will be ready and skilled to take-up a career or to pursue higher studies with high regard to ethical values and social responsibilities.

SCHEME OF EXAMINATION

FIRST SEMESTER

Subject Code	Subject Name	L-T-P	Credits	Marks Weightage		Course Type
				Internal	External	
BSC-105EL	English Literacy	3-0-0	3	25	75	BSC
BSC-106	Typography and Computer Application	3-0-0	3	25	75	BSC
WD-101	Basics of Operating System	3-0-0	3	25	75	PCC
WD-102	Fundamental of Computers and C Programming	3-0-0	3	25	75	PCC
MAC-101 to 103	Mandatory Audit Course	3-0-0	3	25	75	MAC
WD-103	C Programming Lab	0-0-9	9	60	40	SDP
WD-104	HTML Lab	0-0-6	6	60	40	SDP
Total		15-0-15	30	245	455	

SECOND SEMESTER

Subject Code	Subject Name	L-T-P	Credits	Marks Weightage		Course Type
				Internal	External	
BSC-204BS	Behavioral Skills	3-0-0	3	25	75	BSC
BSC-203EC	Engineering Calculations	3-0-0	3	25	75	BSC
WD-201	Web Designing	3-0-0	3	25	75	BSC
WD-202	Object Oriented Programming	3-0-0	3	25	75	PCC
WD-203	Data Structures and Algorithms	3-0-0	3	25	75	PCC
WD-204	C++ Programming Lab	0-0-9	9	60	40	SDP
WD-205	Web Designing Lab	0-0-6	6	60	40	SDP
Total		15-0-15	30	245	455	

LIST OF MANDATORY AUDIT COURSE

COURSE CODE	COURSE NAME
MAC-101	Human Value And Professional Ethics
MAC-102	Balance Diet And Nutrition
MAC-103	Environmental Science

SCHEME OF EXAMINATION

FIRST SEMESTER

Subject Code	Subject Name	L-T-P	Credits	Marks Weightage		Course Type
				Internal	External	
BSC-105EL	English Literacy	3-0-0	3	25	75	BSC
BSC-106	Fundamental of Computers	3-0-0	3	25	75	BSC
WD-101	Basics of Operating System	3-0-0	3	25	75	PCC
WD-102	Programming in C	3-0-0	3	25	75	PCC
MAC-101 to 103	Mandatory Audit Course	3-0-0	3	25	75	MAC
WD-103	C Programming Lab	0-0-9	9	60	40	SDP
WD-104	Html Lab	0-0-6	6	60	40	SDP
Total		15-0-15	30	245	455	

LIST OF MANDATORY AUDIT COURSE

COURSE CODE	COURSE NAME
MAC-101	Human Value And Professional Ethics
MAC-102	Balance Diet And Nutrition
MAC-103	Environmental Science

BSC-105EL: ENGLISH LITERACY
Diploma (Web Designing) I Semester

No. of Credits:		3		Sessional:	25 Marks
L	T	P	Total	Theory:	75 Marks
3	0	0	3	Total:	100 Marks
				Duration of Exam:	3 Hours

Pre- Requisite: Spoken English skills

Successive: Basics Communication Skills

Course Objectives: The objective of studying this course is to acquire knowledge on the Basic English grammar starting from speeches to synaptic category going forward with tenses and its types. To comprehend voices, narration and sentence making.

Course Outcomes: At the end of the course, the student shall be able to:

CO1: To learn about Parts of Speech.

CO2: To learn about Syntactic Category.

CO3: To know more about the Tenses.

CO4: To acquire knowledge on Voices and Sentence Making.

Course Contents:
Unit 1: Parts of Speech
Noun, Pronoun, Verb, Adverb, Adjective.
Unit 2: Literacy Skills
Preposition, Conjunction, Interjection.
Unit 3: Fragment of Tenses
Present tense, Past Tense, Future Tense.
Unit 4: Sentence Formation
Active and Passive voice, Direct and Indirect Narration, Simple Sentences, Compound Sentences, Complex Sentences, Compound-Complex Sentences.

Text Books/ Reference Books:

1. Wren and Martin. High School English Grammar and Composition. New Delhi: RRP, 2007.
2. Murphy, Raymond. Essential English Grammar. New Delhi: Cambridge, 2017.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

BSC-106: TYPOGRAPHY AND COMPUTER APPLICATION
Diploma (Web Designing) I Semester

No. of Credits:		3		Sessional:		25 Marks
L	T	P	Total	Theory:		75 Marks
3	0	0	3	Total:		100 Marks
				Duration of Exam:		3 Hours

Pre- Requisite: Nil

Successive: MS Office, MS Word, MS Excel, and MS PowerPoint.

Course Objectives: The objective of studying this course is to:

- Understand and learn about the basics of windows.
- To understand the important MS office programs.
- To be able to create documents for printing and sharing.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Learners will be able to claim proficiency in Word and PowerPoint.

CO2   Learners will be able to independently create professional looking documents and presentations.

CO3   Learners will be familiar with some advanced Word and PowerPoint functions.

CO4   Learners will understand how to use Word and PowerPoint in a variety of professional, educational and personal situations.

Course Contents:

Unit 1: MS Windows

Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel – display properties, adding and removing software and hardware, setting date and time, screensaver and appearance using windows accessories.

Unit 2: Documentation Using MS Word

Introduction to word processing interface, Toolbars, Menus, Creating & Editing Document, Formatting Document, Finding and replacing text, Format painter, Header and footer, Drop cap, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Previewing and printing document, Advance

Features of MS-Word-Mail Merge, Macros, Tables, File Management, Printing, Styles, linking and embedding object, Template.

Unit 3: Electronic Spread Sheet using MS Excel

Introduction to MS-Excel, Cell, cell address, Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel, Header and footer, Formulas and Functions, Charts, Cell referencing, Page setup, Macros, Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation, Database Management using Excel-Sorting, Filtering, Validation, What if analysis with Goal Seek, Conditional formatting, Collaborating with Other Users, Analyzing and Presenting Complex data.

Unit 4: Presentation using MS PowerPoint

Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect., Introduction to MS Access: creating database creating and manipulating tables, forms, queries, reports, modules, importing and exporting of data.

Text Books/ Reference Books:

1. V. Rajaraman, Computer Fundamentals.
2. Ashok Arora, Fundamentals of Computer System.
3. Russell A Stultz, Fundamentals of Computer System.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

WD-101 Basics of Operating System

Diploma (Web Designing) I Semester

No. of Credits:	3			Sessional:	25 Marks
L	T	P	Total	Theory:	75 Marks
3	0	0	3	Total:	100 Marks
				Duration of Exam:	3 Hours

Pre- Requisite: Knowledge of Computer Organization

Successive: Distributed Operating System, Cloud Computing

Course Objectives:

1. To learn the fundamentals of Operating Systems.
2. To learn the mechanisms of OS to handle processes.
3. To learn the mechanisms involved in memory management in contemporary OS.
4. To gain knowledge on file management aspects of Operating systems

Course Outcomes: At the end of the course, Candidates will be able to:

CO1. Create processes.
CO2. Develop algorithms for process scheduling for a given specification of CPU utilization, Throughput, Turnaround Time, Waiting Time, and Response Time.
CO3. For a given specification of memory organization, develop the techniques for optimally allocating memory to processes by increasing memory utilization and for improving the access time.
CO4. Design and implement a file management system.

Course Content:

Unit 1: Operating Systems

Concept of Operating Systems, Need of operating system, Types of Operating Systems, Services of operating system, Structure of an operating system, Functions of operating system.

Unit 2: Processes

Definition, Different states of a Process, Process Scheduling, Types of Schedulers, and Scheduling criteria: CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time. Scheduling algorithms, FCFS, SJF, Priority, RR, Multiprocessor scheduling.

Unit 3: Memory & File Management

Logical and Physical address space, Swapping, Contiguous Memory allocation, Virtual Memory, Paging, Segmentation, Demand Paging, Page Replacement Algorithm, Thrashing. Concept of File, Access methods, Directory structure, File System structure, Allocation methods.

Unit 4: Disk Management & Case Study

Disk Structure ,Disk Scheduling Algorithm, Network Operating System, Real Time Operating System, Distributed Operating System, Study of various Operating Systems: Windows, Dos, Linux etc.

Reference Books:

1. Operating System Concepts by Silberchatz et al, 5th edition, 1998, Addison Wesley.
2. Modern Operating Systems by A. Tanenbaum, 1992, Prentice-Hall.
3. Operating Systems Internals and Design Principles by William Stallings, 4th edition, 2001, Prentice   Hall.

WD-102 Fundamental of Computers and C Programming
Diploma (Web Designing) I Semester

No. of Credits:	3				Sessional:	25 Marks

L	T	P	Total		Theory:	75 Marks
3	0	0	3		Total:	100 Marks

Duration of Exam: 3 Hours

Pre- Requisite: A basic understanding of Computer Programming terminologies.

Successive: Concepts of C language.

Course Objectives:

1. To make the student learn a programming language.
2. To learn problem solving techniques.
3. To teach the student to write programs in C and to solve the problems.

Course Outcomes: At the end of the course, Candidates will be able to:

CO1. Read, understand and trace the execution of programs written in C language.
CO2. Write the C code for a given algorithm.
CO3. Implement Programs with pointers and arrays, perform pointer arithmetic, and use the preprocessor.
CO4. Write programs that perform operations using derived data types.

Course Content:

Unit 1 Computer Fundamentals

Concept of data and information; Components of Computer: Hardware Input Device, Output Device. CPU: Components of CPU; Memory and Storage Devices; Computer Software: System Software and Application Software; Functions of Operating System. Programming Languages: Machine, Assembly, High Level Language, 4GL; Language Translator; Linker, Loader; Classification of Computers: Micro, Mini, Mainframe, Super computer. Advantages of Computer, Limitations of Computer, Range of Applications of Computer, Social concerns of Computer Technology: Positive and Negative Impacts, Computer Crimes, Viruses and their remedial solutions.

Unit-2 Problem Solving

pseudocode, Problem Identification, Analysis, Flowcharts, Decision Tables, Pseudo codes and algorithms, Program Coding, Program Testing and Execution. C Programming Fundamentals: Keywords, Variables and Constants, Structure of a C program. Operators & Expressions: Arithmetic, Unary, Logical, Bit-wise, Assignment & Conditional Operators, Library Functions, Control Statements: Looping using while, do…while, for statements, Nested loops; decision making using if…else, Else If Ladder; Switch, break, Continue and Go to statements.

Unit: 3 Arrays & Functions

Declaration and Initialization; Multidimensional Arrays. String: Operations of Strings; Functions: Defining & Accessing User defined functions, Function Prototype, Passing Arguments, Passing array as argument, Recursion, Use of Library Functions; Macro vs. Functions. Pointers: Declarations, Operations on Pointers, Passing to a function, Pointers & Arrays, Array of Pointers, Array accessing through pointers, Pointer to functions, Function returning pointers, Dynamic Memory Allocations.

Unit: 4 Structures and Union

Defining and Initializing Structure, Array within Structure, Array of Structure, Nesting of Structure, Pointer to Structure, Passing structure and its pointer to Functions; Unions: Introduction to Unions and its Utilities. Files Handing: Opening and closing file in C; Create, Read and Write data to a file; Modes of Files, Operations on file using C Library Functions; Working with Command Line Arguments. Program Debugging and types of errors.

Reference Books:

1. Problem Solving and Program Design in C, 4th edition, by jeri R. Hanly and Elli B.Koffman.
2. Programming in C by Pradip Dey, Manas Ghosh 2nd edition Oxford University Press.
3. E.Balaguruswamy, Programming in ANSI C 5th Edition McGraw-Hill
4. A first book of ANSI C by Gray J.Brosin 3rd edition Cengagedelmer Learning India P.Ltd
5. AL Kelly, Iraphol,Programming in C,4th edition Addison-Wesley – Professional

MAC-101: HUMAN VALUE AND PROFESSIONAL ETHICS
Diploma (Web Designing) I Semester

No. of Credits:			3	Sessional:		25 Marks
L	T	P	Total	Theory:		75 Marks
3	0	0	3	Total:		100 Marks
				Duration of Exam:		3 Hours

Pre- Requisite: Nil

Course Objectives: The objective of studying this course is to:

- Understand value system.
- Understand Honesty and Integrity.
- Understand the Harmony.
- Understand universal declaration of human rights.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Learn about value education system

CO2   Improve understanding of vales for life.

CO3   Acquire knowledge about harmony in the society.

CO4   Understand the human Right and Social Evils.

Course Contents:

Unit 1: Introduction

Value education-its purpose and significance in the present world, Value system, The role of culture and civilization, Holistic living, Balancing the outer and inner - Body, Mind and Intellectual level- Duties and responsibilities**.**

Unit 2: Salient values for life

Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity, and inclusiveness, Self-esteem and self- confidence, punctuality - Time, task and resource management, Problem solving and decision-making skills- Interpersonal and Intra personal relationship, Team work, Positive and creative thinking.

Unit 3: Understanding Harmony

Harmony in Family and Society: How to owe responsibilities in family, Understanding Values in Human- Human relations, Role of Trust and Respect, Samman (Respect) for all, Akhand Samaj (A United Society)

Understanding the harmony in Society: Solution to our day-to-day problems, Prosperity and Compassion, the formula for establishing a fearless society, crafting a society that co- exists, Human Goals, Universal Human Order, From Family to the World.

Harmony in Nature: Understanding the Harmony in Nature, making sure your contribution is in harmony with nature, Interconnectedness and mutual fulfilment.

Unit 4: Environment and Ecological balance

Interdependence of all beings - living and non-living, The binding of man and nature - Environment conservation and enrichment.

Unit 5: Human Right and Social Evils

Human Rights: Universal Declaration of Human Rights National Integration - Peace and non-violence - Dr. APJ Kalam's ten points for enlightened citizenship - Social Values and Welfare of the citizen - The role of media in value building - Human Rights violations - Social Evils: Corruption, Cybercrime, Terrorism, Alcoholism, Drug addiction, Dowry, Domestic violence, Untouchability, female infanticide, atrocities against women and how to tackle them.

Text Books/ Reference Books:

1. R. R. Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Human Values and Professional Ethics.
2. Prof. K. V. Subba Raju, 2013, Success Secrets for Engineering Students, Smart Student Publications, 3rd Edition.
3. Ivan IIIich, 1974, Energy & Equity, The Trinity Press, Worcester, and HarperCollins, USA.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

MAC-102: BALANCED DIET AND NUTRITION
Diploma (Web Designing) I Semester

No. of Credits:		3		Sessional:	25 Marks
L	T	P	Total	Theory:	75 Marks
3	0	0	3	Total:	100 Marks
				Duration of Exam:	3 Hours

Pre- Requisite: Nil

Course Objectives: The objective of studying this course is to understand and apply the concepts of balanced diet and nutritional value, students will be able to identify and apply food principles to food and nutrition systems.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Understand the basic concepts of a balanced diet.

CO2   Analyze the type of food and their nutritional value.

CO3   Evaluate calorie (BMR).

CO4   Learn the role of diet in healthy living.

Course Contents:

Unit 1: Concepts and Components of Food Nutrition

Meaning of nutrition, Basic definition regarding nutritional requirements, Nutritional need of human; Concept of food, Acceptance of food, Function of food, Components of food and their classification; Macronutrients – Carbohydrate, Fat, Protein (source, function and effect on the body); Micronutrients – Vitamins, Mineral, Water, roughage (source, function and effect on body); Planning Balanced Diet.

Unit 2: Food Group

Cereals and Millet – Selection, Preparation and Nutritive value; Pulses, Nuts and Oilseeds- Selection, Preparation and Nutritive value; Milk and Milk production - Selection, Preparation and Nutritive value; Vegetable and Fruits - Selection, Preparation and Nutritive value; Fatty oil and Sugar, Jaggery - Selection, Preparation and Nutritive value.

Unit 3: Food and Digestion

Energy – Key concepts, Definition and Components of energy requirements.; Energy – Imbalance concepts of metabolism, anabolism and catabolism; Calorie requirement – BMR, SDA; Physical activity – carbohydrates, lipids and protein metabolism;

Factors affecting energy- requirement and expenses; Factors affecting BMR; Factors influencing energy expenditure in physical activity; Methods and requirements for estimating energy expenditure.

Unit 4: Yogic concepts of Diet andNutrition

General introduction to diet concepts, concepts of mitahara, Definition and classification, yogic diet according to traditional yoga texts; Concepts of diet according to Gheranda Samhita and Hathpradeepika; Satvik, Rajsik and Tamasik diet as describe in Bhagwadgeeta; Pathya and Apathya food according to the texts of Yoga; Role of yogic diet in healthy living; Diet according to nature of the body – Vata, Pitta and Kapha

Text Books/ Reference Books:

1. Bakhru, H. K., 1991, A Complete Handbook of Nature Cure.
2. Kumar Neeraj, Nagendra, 2014, MeraAaharMeraSwasthya.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

MAC-103: ENVIRONMENTAL SCIENCE
Diploma (Web Designing) I Semester

No. of Credits:	3			Sessional:	25 Marks
L	T	P	Total	Theory:	75 Marks
3	0	0	3	Total:	100 Marks
				Duration of Exam:	3 Hours

Pre- Requisite: Nil

Course Objectives: The objective of studying this course is:

- To provide the students a detailed knowledge on the threats and challenges to the environment due to developmental activities.
- To identify the natural resources and suitable methods for their conservation and sustainable development.
- To focus on the importance of ecosystem and biodiversity for maintaining ecological balance.
- To learn about various attributes of pollution management and waste management practices.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Get the information about the ecosystem and also about its functions like Food chain, Ecological pyramids etc.

CO2   Get the knowledge about the different types of resources like land, water, mineral and energy and also about the effects of the environment by the usage of these resources.

CO3   Gain the knowledge about the ecosystem diversity, its values and also about the importance of the endemic species and different techniques involved in its conservation

CO4   Gain knowledge about the different types of pollution and their control technologies, Wastewater treatment, Bio medical waste management etc.

CO5   Get the complete information about EIA- Environmental Impact Assessment, Sustainable developmental activities, environmental policies and regulations, awareness among people about protection of wild life, forest and other natural resources.

Course Contents:

Unit 1: The Multidisciplinary Nature of Environmental Studies

Definition, scope and importance. Need for public awareness.

Unit 2: Natural Resources Renewable and Non-Renewable Resources

Natural resources and associated problems, Forest resources: Use and overexploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. Mineral resources: Use and exploitation, environmental effects of extracting and mineral resources, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources: Growing energy needs, renewable and non- renewable energy sources, use of alternate energy sources. Case studies. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

Unit 3: Ecosystems

Concept of an ecosystem Structure and Concept of an ecosystem, Structure and function of an ecosystem. Producers, consumers and decomposers, Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids, Introduction, types, characteristic features, structure and function of the following ecosystem: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, and estuaries).

Unit 4: Biodiversity and Its Conservation

Definition: genetic, species and ecosystem diversity. Biogeographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, National and local levels. India as a mega-diversity nation. Hot-spots of biodiversity. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity: in-site and ex-situ conservation of biodiversity.

Unit 5: Social Issues and The Environment

From Unsustainable to Sustainable Development urban problems related to energy. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns. Case studies, Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies, Wasteland reclamation. Consumerism and waste products, Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and Control of Pollution) Act, Wildlife Protection Act. Forest Conservation Act. Issues involved in enforcement of environmental legislation, public awareness.

Text Books/ Reference Books:

1. "Perspectives in Environmental Studies" by A. Kaushik and C. P. Kaushik, New age international publishers.

2. "Environmental Studies by Benny Joseph", Tata McGraw Hill Co, New Delhi
3. "Environmental Science towards a sustainable future" by Richard T. Wright. 2008 PHL Learning Private Ltd. New Delhi.
4. "Environmental Engineering and science" by Gilbert M. Masters and Wendell P. Ela 2008 PHI Learning Pvt Ltd.
5. "Fundamentals of Ecology" by Odum, E.P., Barrick, M. and Barret, G.W. Thomson Brooks/Cole Publisher, California, 2005.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

WD-103 C Programming Lab
Diploma (Web Designing) I Semester

No. of Credits:	9			Sessional:		25 Marks

L	T	P	Total		Theory:	75 Marks
0	0	9	9		Total:	100 Marks

Duration of Exam: 3 Hours

Pre- Requisite: Basic understanding of Computer Programming terminologies.

Successive: C language concepts

Course Objectives:

1. To be familiar with syntax and structure of C-Programming
2. To learn problem solving techniques using C.
3. To be familiar with different data types, Operators and Expressions in C.
4. To be familiar with formatted and unformatted I/O in C with preprocessor directives.
5. To understand the programming using Loop & nested loop Statements (for, while, do-while).
6. To understand programming using different dimensions of Array.
7. To understand programming with Pointer, String and Function call by reference.

Course Outcomes: After the completion of this course, the students will be able to:

CO1. Use the fundamentals of C programming in trivial problem solving.
CO2. Enhance skill on problem solving by constructing algorithms.
CO3. Identify solutions to a problem and apply control structures and user defined functions for solving the problem.

Course Content:

1. Write a program to display "hello world" in C.
2. Write a program to add two numbers (5&7) and display its sum.
3. Write a program to multiply two numbers (10&8) and display its product.
4. Write a program to calculate the area of a circle having its radius (r=5).
5. Write a program to calculate the area of an ellipse having its axes (minor=4cm, major=6cm).
6. Write a program to calculate simple interest for a given P=4000, T=2, R=5.5.
   (I = P*T*R/100)
7. Write a program to declare two integers and one float variable then initialize them to 10, 15, and 12.6. Also print the variable values on the screen.

8. Write a C program to prompt the user to input 3 integer values and print these values in forward and reversed order.
9. Write a program to calculate simple and compound interest.
10. Write a program to swap two variables values with and without using third variables
11. Write a program to check odd or even number
    a. using modulus operator
    b. using bitwise operator
    c. without using bitwise and modulus operator
    d. using a conditional operator.
12. Print the value of y for given x=2 & z=4 and analyze the output.
    i. y = x++ + ++x;
    ii. y= ++x + ++x;
    iii. y= ++x + ++x + ++x;
    iv. y = x>z;
    v. y= x>z? x:z;
    vi. y = x&z;
    vii. y= x>>2 + z<<1;
13. Write a program to print the size of char, float, double and long double data types in C.
14. Write a program to produce the output as shown below:

x		y		expressions		results
6	|	3	|	x=y+3 |		x=6
6	|	3	|	x=y-2 |		x=1
6	|	3	|	x=y*5 |		x=15
6	|	3	|	x=x/y |		x=2
6	|	3	|	x=x%y |		x=0

15. Demonstrate the differences among getch(), getche(), getchar(). Demonstrate the difference between scanf() & gets(), printf() & puts().
16. Write a program to check whether input alphabet is vowel or not using if-else and switch statement.
17. Write a program that asks a number and test the number whether it is multiple of 5 or not.
18. Write a program to check whether the entered year is a leap year or not (a year is leap if it is divisible by 4 and divisible by 100 or 400.)
19. Write a program to input two integer numbers and display the sum of even numbers between these two input numbers.
20. Write a program to find GCD (greatest common divisor or HCF) and LCM (least common multiple) of two numbers.
21. Write a program to display Fibonacci series of last term up to 300.
22. Write a program to enter 10 floating numbers in an array and display it.
23. Write a program to initialize a one dimensional array of size 8 and display the sum and average of array elements.
24. Write a program to find the biggest among three numbers using a pointer.
25. Write a program to find the sum of all the elements of an array using pointers.

26. Write a program to swap values of two variables using a pointer.
27. Write a program to read a sentence and count the number of characters & words in that sentence.
28. Write a program to copy one string to another string with and without using the string handling function.
29. Write a program to concatenate two strings.
30. Write a program to compare two strings.

Reference Books

1. The 'C' programming language by Kernighan and Ritchie, Prentice Hall
2. Computer Programming in 'C' by V. Rajaraman , Prentice Hall
3. Programming and Problem Solving by M. Sprankle, Pearson Education
4. How to solve it by Computer by R.G. Dromey, Pearson Education

WD-104 HTML Lab

Diploma (Web Designing) I Semester

No. of Credits:	6				Sessional:	25 Marks
L	T	P	Total		Theory:	75 Marks
0	0	6	6		Total:	100 Marks
					Duration of Exam:	3 Hours

Pre- Requisite: NIL

Successive: Build webpage using HTML

Course Objectives:
1. To acquire knowledge and Skills for creation of Web Site considering both client- and server- side Programming.
2. To create Web applications using HTML.
3. To be well versed with XML and web services Technologies.
4. To be familiarized with open source Frameworks.

Course Outcomes: After the completion of this course, the students will be able to:

CO1: Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.
CO2: Able to use the HTML programming language.
CO3: Able to use the Design Programs / to make changes on the site.

Course Content:

1. Program to describe various text formatting commands.
2. Program to create an unordered list.
3. Program to create an ordered list.
4. Program to create a Table.
5. Program to create a simple form.
6. Program to create a hyperlink.
7. Program to insert an image to Web page.
8. Program to insert scrolling text using Marquee tag.
9. Program to divide a page into Frames.
10. Program to create a simple layout of Webpage.

Reference Books:

1. Head First HTML and CSS by Elizabeth Robson and Eric Freeman.
2. HTML and CSS Quickstart Guide by by David DuRocher
3. Get Coding!: Learn HTML, CSS & JavaScript & Build a Website, App & Game – by Young Rewired State

SECOND SEMESTER

Subject Code	Subject Name	L-T-P	Credits	Marks Weightage		Course Type
				Internal	External	
BSC-204 BS	Behavioral Skills	3-0-0	3	25	75	BSC
BSC-203E C	Engineering Calculations	3-0-0	3	25	75	BSC
WD-201	Web Designing	3-0-0	3	25	75	BSC
WD-202	Object Oriented Programming	3-0-0	3	25	75	PCC
WD-203	Data Structures and Algorithms	3-0-0	3	25	75	PCC
WD-204	C++ Programming Lab	0-0-9	9	60	40	SDP
WD-205	Web Designing Lab	0-0-6	6	60	40	SDP
Total		15-0-15	30	245	455	

BSC-203EC: ENGINEERING CALCULATIONS
Diploma (Web Designing) II Semester

No. of Credits:		3		Sessional:		25 Marks
L	T	P	Total	Theory:		75 Marks
3	0	0	3	Total:		100 Marks
				Duration of Exam:		3 Hours

Pre- Requisite: Basic mathematics

Successive: Concepts of trigonometry, differentiation and integration.

Course Objectives: The objective of studying this course is to:

- Familiarize the prospective graduates with the basics of mathematics.
- Provide knowledge on the application of trigonometry, integration and differentiation.
- Understand the use of matrices, trigonometry, integration and differentiation to solve formulated mathematical problems.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Use trigonometry functions, ratios and their applications in real world scenarios.

CO2   Use trigonometric identities to solve mathematical problems.

CO3   Understand and use matrices to solve mathematical problems.

CO4   Deal with differential and integral problems.

Course Contents:

Unit 1: Trigonometry

Introduction to trigonometric functions: Radian and degree measure, right triangle trigonometry, trigonometric functions of any angle, applications using right triangles; Graphs of sine and cosine functions, transformation of graphs of the sine and cosine functions, Trigonometric Identities, Quadrant Rule, Sum and difference identities for cosine, sine, and tangent, Double-angle identities, half-angle identities, Verifying trigonometric identities, Ratios of Complementary Angles.

Unit 2: Matrices and Determinants

Definition and Properties of Determinants, Definition and Types of Matrices, Transpose of a Matrix, Symmetric, Skew Symmetric Matrices, Orthogonal matrices, Hermitian and Skew Hermitian, Minors and Cofactors, Adjoint and Inverse of a Matrix, Cramer's Rule, Solution of Simultaneous Linear Equations by Inverse Matrix Method.

Unit 3: Differentiation and Integration

Introduction to Derivatives, Product Rule, Quotient Rule, Chain Rule, Derivatives of Algebraic Function, Derivative of trigonometric functions, Derivative of inverse trigonometric functions, evaluation of simple differentials. Concepts of integration, integration of trigonometric functions, exponential and logarithmic functions, integration by parts, evaluation of simple integrals.

Unit 4: Complex Numbers

Definition of Complex Number, Operations on Complex Number (Add., Sub., Multiplication, Division), Conjugate Complex Number, Modulus and Amplitude of a Complex Number, Polar form of a Complex Number.

Text Books/ Reference Books:

1. G.B. Thomas and R.L. Finney, "Calculus and Analytic geometry", Pearson, 2002.
2. Advanced Engineering Mathematics by R.K. Jain.
3. A Basic course in Mathematics by NabjyotiDutta.
4. Skills in mathematics by Amit M Aggarwal.
5. Applied Mathematics for Polytechnics by H.K. Dass.
6. N.P. Bali and Manish Goyal, "A text book of Engineering Mathematics", Laxmi Publications, Reprint, 2010.

Note: It is recommended that some part of the syllabus is to be covered in online mode.

BSC-204BS: BEHAVIOURAL SKILLS
Diploma (Web Designing) II Semester

No. of Credits:	3				Sessional:	25 Marks
L	T	P	Total		Theory:	75 Marks
3	0	0	3		Total:	100 Marks
					Duration of Exam:	3 Hours

Pre- Requisite: Communication Skills.

Successive: Basic reading and writing skills.

Course Objectives: The objective of studying this course is to discuss Communication skills and their forms and how it is going to help the students. To acquire the practical knowledge of writing skills, along with group discussion and interview skills.

Course Outcomes: At the end of the course, the student shall be able to:

CO1   Understand the basic concept of communication.

CO2   To acquire better writing skills in formal communication.

CO3   Actively participate in group discussion / meetings / interviews and prepare & deliver presentations.

CO4   Fundamental knowledge about Speaking and reading skills.

Course Contents:

Unit 1: Communication Skills

Meaning of Communication , Importance , Function , Types , Communication barriers and its solutions.

Unit 2: Writing Skills

Letter writing: Formal letter, application letter, covering letter and business letter.

Report writing: Academic report, Business report, technical report, News report.

Mail writing and resume

Unit 3: Soft Skills

Definition and significance of soft skills, Group Discussions, basic knowledge of translator and Paraphrasing.

Unit 4: Speaking and Reading Skills

Importance of Literacy skills (Reading, Writing , Listening , Speaking), telephonic communication skill, Levels of reading skills, process of skimming and scanning.

Text Books/ Reference Books:

1. Mishra. B, Sharma. S (2011) Communication Skills for Engineers and Scientists. PHI Learning Pvt. Ltd.
2. Chaturvedi P. D, Chaturvedi M. (2011) Business Communication: Concepts, Cases and Applications. Pearson Education India.

WD-201 Web Designing
Diploma (Web Designing) II Semester

No. of Credits: 3   Sessional: 25 Marks

  L   T   P   Total   Theory: 75 Marks

  3   0   0   3   Total: 100 Marks

                                              Duration of Exam: 3 Hours

Pre- Requisite: Basics of computer

Successive: Web Development

Course Objectives:

1. Understand the principles of creating an effective web page
2. Develop skills in analyzing the usability of a web site.
3. Understand how to plan and conduct user research related to web usability.
4. Learn the language of the web: HTML and CSS.

Course Outcomes: At the end of the course, Candidates will be able to:

CO1: Be able to use the HTML programming language.
CO2: Resolves written HTML codes.
CO3: Runs the page he/she has designed using HTML codes.
CO4: Be able to use the Design Programs.

Course Content:

Unit: 1 Web Design Principles: Basic Principles involved in developing a web site, Planning process, Five Golden rules of Web Designing, World Wide Web, Why create a web site, Web Standards.

Unit: 2 Introduction to HTML: What is HTML, HTML Documents, Basic structure of an HTML document, creating an HTML document, Mark up Tags, Heading-Paragraphs, Line Breaks, and HTML Tags. Elements of HTML: Introduction to elements of HTML, Working with Text, Working with Lists, Tables and Frames; Working with Hyperlinks, Images and Multimedia; Working with Forms and controls.

Unit:3 Introduction to Cascading Style Sheets: Concept of CSS, Creating Style Sheet, CSS Properties, CSS Styling(Background, Text Format, Controlling Fonts), Working with block elements and objects, Working with Lists and Tables, CSS Id and Class, Box Model(Introduction, Border properties, Padding Properties, Margin properties), CSS Color.

Unit: 4 Introduction to Web Publishing or Hosting: Creating the WebSite, Saving the site, working on the website, Creating website structure, Themes-Publishing web sites.

Unit: 5 JavaScript introduction: What is JavaScript, Understanding Events, JavaScript Example, and External JavaScript.

Unit: 6 Introduction to Bootstrap: History, Fundamentals of Bootstrap, Bootstrap Grid System, Bootstrap Form and Form Components, Introduction Jquery, Element

Selector, Document ready function, Events, Event handling with Html or Bootstrap components.

Reference Books:

1. Satish Jain, Ambrish K. Rai and M. Geetha, Web Designing and Development, BPB Publications.
2. Hirdesh Bhardwaj, Web Designing.
3. Jon Duckett, HTML & CSS: Design and Build Web Sites.

No. of Credits:			3	Sessional:	25 Marks
L	T	P	Total	Theory:	75 Marks
3	0	0	3	Total:	100 Marks
				Duration of Exam:	3 Hours

Pre- Requisite: Basic Knowledge of C

Successive: Object Oriented Concepts

Course Objectives:

1. To be familiar with the main features of the C++ language.
2. To be able to understand C++ program to solve a well specified problem.
3. Understand a C++ syntax written by someone else.

Course Outcomes: At the end of the course, students will be able to:

CO1. Describe the important concepts of object oriented programming like object and class, Encapsulation, inheritance and polymorphism.
CO2. Write the skeleton of C++ program.
CO3. Write the simple C++ programs using the variables, operators, control structures, functions.
CO4. Write the simple object oriented programs in C++ using objects and classes, inheritance, file management, exceptions etc.

Course Content:

Unit: 1 Concepts of OOP and C++ Basics: Introduction OOP, Procedural Vs. Object Oriented Programming, Principles of OOP, Benefits and applications of OOP. Overview of C++, Program structure, namespace, identifiers, variables, constants, enum, operators, typecasting, control structures.
Unit: 2 C++ Functions and Objects and Classes: Simple functions, Call and Return by reference, Inline functions, Macro Vs. Inline functions, Overloading of functions, default arguments, friend functions, virtual functions. Basics of object and class in C++, Private and public members, static data and function members, constructors and their types, destructors, operator overloading, type conversion.
Unit: 3 Inheritance and Polymorphism: Concept of Inheritance, types of inheritance: single, multiple, multilevel, hierarchical, hybrid, protected members, overriding, virtual base class. Pointers in C++, Pointes and Objects, this pointer, virtual and pure virtual functions, Implementing polymorphism.
Unit: 4 I/O, File Management, Templates, Exceptions and STL: Concept of streams, cin and cout objects, C++ stream classes, Unformatted and formatted I/O, manipulators, File stream, C++ File stream classes, File management functions, File modes, Binary and random Files. What is template? function templates and class templates, Introduction to exception, try-catch- throw, multiple catch, catch all,

rethrowing exception, implementing user defined exceptions, Overview and use of Standard Template Library.

Reference Books:

1. Let Us C++, Yashavant Kanetkar
2. A Tour of C++ by Bjarne Stroustrup.
3. Programming: Principles and Practice Using C++ by Bjarne Stroustrup.

WD-203 Data Structures and Algorithms
B. Voc. (Web Development) Semester 2nd

No. of Credits:		3		Sessional:		25 Marks
L	T	P	Total	Theory:		75 Marks
3	0	0	3	Total:		100 Marks
				Duration of Exam:		3 Hours

Pre- Requisite: Preliminary knowledge of computers, C and C++.

Successive: Database design and logic development.

Course Objectives: The objective of studying this course is to impart the basic concepts of data structures and algorithms, searching and sorting techniques, stacks, queues, lists, trees & graphs and also enable them to write algorithms for solving problems with the help of fundamental data structures.

Course Outcomes: At the end of the course, the student shall be able to:
CO1: Argue the correctness of algorithms using inductive proofs and invariants.
CO2: Analyze worst-case running times of algorithms using asymptotic analysis.
CO3: Explain the major graph algorithms and their analyses.
CO4: Compare between different data structures. Pick an appropriate data structure for a design situation.

Course Content:

Unit: 1 Concept of Data Structures and algorithms: Concepts of Data Types, Data Structure, Abstract Data Type and their uses Background for Data Structure, Definition and use of ADT, Array as an ADT, Structure, Pointer. Introduction to Algorithms and their properties, Concepts of Analysis of algorithms with asymptotic notations (Big Oh) and their properties, time and space complexities.

Unit: 2 Stack and Queues: Definition and Primitive Operations, Stack Applications: Evaluation of Infix, Postfix and Prefix expressions, converting from infix to prefix and postfix. Definition of Queue and Primitive Operations of Linear and Circular Queue, Application and advantages of Linear, Circular Queue, and Priority Queue (Ascending and Descending Priority Queue)

Unit: 3 Recursion and Lists: Definition and Principle of Recursion, Application of Recursion, Recursion removal using stack, example of recursion for TOH Factorial, Fibonacci Sequences, GCD, efficiency of above recursive algorithms. List concepts, Static and Dynamic List Structure and implementation, Types of linked list, Operations on Linked List, Singly linked list, Circular Linked List, Doubly Linked List, Doubly Circular Linked List, Inserting, traversing and deleting nodes at beginning, end and specified positions in these linked lists, Linked implementation of a stack and queue in singly linked list

Unit: 4 Tree and Sorting: Definition and basic terminologies of tree, Binary Tree: Introduction, Types of Binary Tree, Level and depth, height balanced tree(AVL), Operations in Binary Search Tree (BST): Insertion, Deletion, Searching, Tree Traversal: Pre-order traversal , In-order traversal (sorted list of Nodes), Post-order traversal, Applications of Binary Tree (Huffman tree, expression tree) Introduction

and types of sorting Algorithm and implementation of Bubble Sort, Insertion Sort, Selection Sort, Quick Sort, Merge Sort Comparison and Efficiency of sorting algorithms.

Unit: 5 Searching: Introduction Sequential Search, Binary Search and Tree Search Comparison and Efficiency of Searching *Hashing:* hash function, hash table and collision resolution techniques. Definition and Representation of Graph, Types of Graph, *Graph Traversal:* Depth First Search, Breadth First Search Spanning Tree, Prim's Algorithm, Kruskal's algorithm and Round Robin Algorithm, Shortest Path Algorithm, Greedy and Dijkstra's Algorithm

Reference Books:
1.   Data Structure with C by Seymour Lipschutz
2.   Data Structure with C by Aaron M.Tanenbaum, Yedidyah Langsam

WD-204 C++ Programming Lab
Diploma (Web Designing) II Semester

No. of Credits:		3		Sessional:	25 Marks	
L	T	P	Total	Theory:	75 Marks	
3	0	0	3	Total:	100 Marks	
				Duration of Exam:	3 Hours	

Pre- Requisite: Know about C Programming.

Successive: Object Oriented Concepts

Course Objectives:

1. To be familiar with the main features of the C++ language.
2. Be able to write a C++ program to solve a well specified problem.
3. Understand a C++ program written by someone else.
4. Be able to debug and test C++ programs;
5. Understand how to read C++ doc library documentation and reuse library code.
6. To understand the features of object oriented principles and be familiar with virtual functions, templates and exception handling.
7. To develop applications using C++.

Course Outcomes: After the completion of this course, the students will be able to:

CO1: Understand and use the basic programming constructs of C/C++
CO2: Manipulate various C/C++ datatypes, such as arrays, strings, and pointers
CO3: Isolate and fix common errors in C++ programs
CO4: Use memory appropriately, including proper allocation/deallocation procedures
CO4: Apply object-oriented approaches to software problems in C++
CO5: Write C++ programs using the above skills

Course Content:

1. Write a C++ program to find the largest of three numbers using inline function.
2. Write a C++ program to sort an array of integer in ascending order using a function called exchange ( ) which accepts two integer arguments by reference.
3. Write a C++ program to implement function overloading in order to compute power(m,n) where
i)   m is double and n is int
ii) m and n are int.
4. Create a 'DISTANCE' class with: - feet and inches as data members - member function to input distance - member function to output distance - member function

to add two distance objects Write a main function to create objects of DISTANCE class. Input two distances and output the sum.

5. Create a class called 'EMPLOYEE' that has - EMPCODE and EMPNAME as data members - member function getdata ( ) to input data - member function display ( ) to output data Write a main function to create EMP, an array of EMPLOYEE objects. Accept and display the details of at least 6 employees.

6. Create a class called 'TIME' that has - three integer data members for hours, minutes and seconds - constructor to initialize the object to zero - constructor to initialize the object to some constant value - member function to add two TIME objects - member function to display time in HH:MM:SS format Write a main function to create two TIME objects, add them and display the result in HH:MM:SS format.

7. Create a class 'COMPLEX' to hold a complex number. Write a friend function to add two complex numbers. Write a main function to add two COMPLEX objects.

8. Create a 'MATRIX' class of size m X n. Overload the'+' operator to add two MATRIX objects. Write a main function to implement it.

9. Derive a class 'MAT' from MATRIX class created in program No. 8. Add a member function to overload '*' operator to multiply two objects. (Single Inheritance)

10. Write a c++ program to illustrate multilevel inheritance.

11. Write a c++ program to illustrate multiple inheritance

12. Create a 'STRING' class which overloads ' = = ' operator to compare two STRING objects.

13. Write a C++ program to illustrate 'this' pointer and pointers to derived classes.

14. Create a base class called 'SHAPE' having - two data members of type double - member function get-data( ) to initialize base class data members - pure virtual member function display-area( ) to compute and display the area of the geometrical object. Derive two specific classes 'TRIANGLE' and 'RECTANGLE' from the base class. Using these three classes design a program that will accept dimension of a triangle / rectangle interactively and display the area.

15. Write a C++ program to read a list containing item name, item code and cost interactively and display the data in a tabular format as shown below:
    a. NAME CODE   COST

16. Design your own manipulator to provide the following output specification for printing money value:
    1. 10 columns width
    2. The character '$' at the beginning
    3. Showing '+' sign.
    4. Two digits precision
    5. Filling of unused spaces with ' * '
    6. Trailing zeros shown

17. Write a C++ program that uses a single file for both reading and writing the data.

18. A file contains a list of names and telephone numbers in the following form: Name Tel. No.

Write a C++ program to read the file and output the list in the tabular format. The name should be left-justified and numbers right-justified. Use a class object to store each set of data.

19. Write an interactive, menu-driven program that will access the file created in program No.18 and implement the following tasks:
    1. To determine the telephone numbers of the specified person.
    2. To determine the name if a telephone number is given.
    3. To update the telephone number whenever there is a change.

20. Write a C++ program that displays the size (in bytes) of a given file. The name of the file is specified as command line argument.

21. Define a function template for finding the minimum value contained in an array. Write main ( ) function to find the minimum value of integer array and minimum value of floating point numbers in an array.

22. Write a class template to represent a generic vector. Include member functions to perform the following tasks:
    1. To create the vector.
    2. To modify the value of a given element.
    3. To multiply the vector by a scalar value.
    4. To display the vector in the form (10, 20, 30,…)

Reference Books:

1. Let Us C++, Yashavant Kanetkar
2. A Tour of C++ by Bjarne Stroustrup.
3. Programming: Principles and Practice Using C++ by Bjarne Stroustrup.

WD-205 Web Designing Lab
Diploma (Web Designing) II Semester

No. of Credits: 3   Sessional: 25 Marks

  L   T   P   Total   Theory: 75 Marks

  3   0   0   3   Total: 100 Marks

                                                     Duration of Exam: 3 Hours

Pre- Requisite: NIL

Successive: Web Development

Course Objectives:

1. To acquire knowledge and Skills for creation of Web Site considering both client- and server- side Programming.
2. To create Web applications using tools and techniques used in industry.
3. To be well versed with XML and web services Technologies.
4. To be familiarized with open source Frameworks for Software Development.

Course Outcomes: After the completion of this course, the students will be able to:

CO1: Design a basic web site using HTML5 and CSS3 to demonstrate responsive web design.
CO2: Develop simple web application using server side programing and Database Connectivity.
CO3: Build well-formed XML Document and implement Web Service using Java
Course Content:

1. Introduction to HTML Tags :- Working of Web browser, Introduction to static Web pages and dynamic web pages, HTML body structure, HTML Tags:- Elements, Attribute, Heading tag, Paragraph tag, Formatting tags (Bold text, Important text, Italic text, Emphasized text, Marked text, Small text, Deleted text, Inserted text, Subscripts, Superscripts), Background color, image, font color, effects, Table tag List.
2. Advance HTML tags :- Frames iframes, anchor tag, Multimedia
3. Create Static Website by using all HTML Tags.
4. Introduction to Internal CSS
5. Introduction to External CSS
6. HTML Form tags(Elements, Attributes, properties, etc)
7. Introduction to JAVA Script(Programming basics)
8. Advance JAVA Script programming basics (Alert, Confirm, prompt) and Validations.
9. Create 3 Web pages using Bootstrap framework, use bootstrap table, image and form elements etc.
10. Create the web page using Jquery effects, events on different elements

Reference Books:

1. Satish Jain, Ambrish K. Rai and M. Geetha, Web Designing and Development, BPB Publications.
2. Hirdesh Bhardwaj, Web Designing.
3. Jon Duckett, HTML & CSS: Design and Build Web Sites