Subject Code	Subject Title	L	T	P	Total of LTP	C
UCA18201	WEB TECHNOLOGY	4	0	0	4	4

INSTRUCTIONAL OBJECTIVES:

At the end of this course the learner is expected:
1. To learn Several data structure concepts like stack, queue, linked list, trees and graphs
2. To learn the Applications of data structures.
3. To improve the Problem solving quality using data structure techniques.

UNIT I – CSS (12 Hours)

Cascading Style Sheet: HTML CSS-Inline styles- Creating style sheets with the style elements- Building a web page.

UNIT II – DOM (12 Hours)

DOM model: Understanding DOM model. Objects in HTML, Browser, object, window, history, location, navigator, document object.

UNIT III – INTRODUCTION TO JAVA SCRIPT (12 Hours)

Java Script: Introduction to scripting-Operators: logical-Increment and decrement operators-control structures.

UNIT IV - FUNCTIONS, ARRAYS AND OBJECTS (12 Hours)

Functions: Definition-scope rules-recursion-Arrays: Declaring arrays- passing array to function-sorting arrays- object: math object-string object-data object- boolean object and number object, Handling event using java script.

UNIT V - INTRODUCTION TO XML (12 Hours)

XML-XML overview-features-HTML XML-processing instructions-application of XML-COMMENTS-XML names space – schema-Document Type Definition (DTD) – Extensible style language (XSL).

TEXT BOOKS

1. Ivan Bayross,(2005), ”Web enabled commercial application development using HTML, DHTML java script, peal CGI”, 3 rd Edition, BPB Publications, New Delhi.(Unit I & II)

2. H M Deitel, T.R. Nieto, (2011) ”Internet and world wide web How to program”, Fifth Edition, Prentice Hall of Indian Pvt. Ltd, New Delhi.(Unit III, IV,V

LESSON PLAN

Subject Title: **WEB TECHNOLOGY**

Subject Code: UCA18201

Unit I

Cascading Style Sheet: HTML CSS - Inline styles - creating style sheets with the style elements - Building a web page.

Lecture Hour	Description	Reference with chapter
1	Cascading Style Sheet	TB:II Chapter 12
2	HTML CSS	TB:II Chapter 12
3	Basic Tags in HTML	TB:II Chapter 2
4	Inline styles	TB:II Chapter 5
5	Formatting Tags	TB:II Chapter 2
6	External style sheet	TB:II Chapter 5
7	Types of Selector	TB:II Chapter 2
8	Embedded style sheet	TB:II Chapter 5
9	Creating style sheets with the style elements	TB:II Chapter 5
10	Building a web page	TB:II Chapter 5

Unit II

DOM model: Understanding DOM model - Objects in HTML, Browser, Object, Window, History, Location, Navigator, Document object.

Lecture Hour	Description	Reference with chapter
11	DOM model	TB:II Chapter 9
12	Understanding DOM model	TB:II Chapter 9
13	Objects in HTML	TB: I Chapter 9
14	Properties in HTML	TB: I Chapter 9
15	Methods of HTML	TB: I Chapter 9
16	DOM Hierarchy	TB: I Chapter 9
17	Browser	TB: I Chapter 9
18	Window	TB: I Chapter 9
19	History	TB: I Chapter 9
20	Location	TB: I Chapter 9
21	Navigator	TB: I Chapter 9
22	Document object	TB: I Chapter 9

Unit III

Java Script: Introduction to scripting operators: Logical-Increment and decrement operators- Control structures.

Lecture Hour	Description	Reference with chapter
23	Java Script	TB:II Chapter 8
24	Introduction to scripting operators	TB:II Chapter 8
25	Advantages of Java Script	TB:II Chapter 8
26	Creating Variables	TB:II Chapter 8
27	Data Types	TB:II Chapter 8
28	Logical	TB:II Chapter 8
29	Increment and decrement operators	TB:II Chapter 8
30	Control structures	TB:II Chapter 8

Unit IV

Functions: Definition-Scope rules-Recursion-Arrays: Declaring arrays- Passing array to function-Sorting arrays- Object: Math object-String object-Data object-Boolean object and Number object, handling event using java script.

Lecture Hour	Description	Reference with chapter
31	Functions	TB: I Chapter 9
32	Definition	TB: I Chapter 9
33	Scope rules	TB: I Chapter 9

34	Recursion	TB: I Chapter 9
35	Arrays	TB: I Chapter 9
36	Declaring arrays	TB: I Chapter 10
37	Passing array to function	TB: I Chapter 10
38	Sorting arrays	TB: I Chapter 10
39	Object	TB: I Chapter 10
40	Math object	TB: I Chapter 10
41	String object	TB: I Chapter 10
42	Data object	TB: I Chapter 10
43	Boolean object	TB: I Chapter 10
44	Number object	TB: I Chapter 10
45	Example programs using the Objects	TB: I Chapter 10
46	String manipulation using String object	TB: I Chapter 10
47	Web page creation using mouse co-ordinates	TB: I Chapter 10
48	Handling event using java script	TB: I Chapter 10

Unit V

XML - XML Overview – Features - HTML - XML-Processing Instructions - Application of XML-COMMENTS-XML namespace – Schema-Document Type Definition (DTD) – Extensible Style Language (XSL).

Lecture Hour	Description	Reference with chapter
49	XML overview	TB: I Chapter 14
50	Features	TB: I Chapter 14
51	HTML XML	TB: I Chapter 14
52	Processing instructions	TB: I Chapter 14
53	Applications of XML, COMMENTS	TB: I Chapter 14
54	XML Namespace	TB: I Chapter14
55	Schema	TB: I Chapter 14
56	Document Type Definition (DTD)	TB: I Chapter 14
57	Types of Comments	TB: I Chapter 14
58	Sample codlings HTML XML	TB: I Chapter 14
59	Create web page using Schemas	TB: I Chapter 14
60	Extensible style language (XSL)	TB: I Chapter 14

Subject Code	Subject Title	L	T	P	Total of LTP	C
UCA18202	OBJECT ORIENTED PROGRAMMING USING C++	4	0	0	4	4

INSTRUCTIONAL OBJECTIVES:

At the end of this course the learner is expected:

1. To learn the concepts of class & objects.
2. To perform Inheritance, Overloading of operators, functions, constructors and File Handling.
3. To do effective exception handling.

UNIT I - PRINCIPLES OF OBJECT ORIENTED PROGRAMMING

Object Oriented Programming Paradigms- Basic concept of OOPS- Benefits of OOP-what is C++-simple C++ program-Structure of C++ program- Creating a source file – Compiling and linking.

UNIT II - TOKENS, EXPRESSION AND CONTROL STRUCTURES

Tokens-Keywords-Identifiers and Constants-Basic data types-User defined data types-Derived data types-Type compatibility-Declaration of variables-Dynamic initialization of variables-Reference variables-Operators in C++-Manipulators-Type cast operator-Implicit conversion-Operator overloading-Control structures.

UNIT III - CLASS AND OBJECTS

Functions in C++- Function overloading-Specifying a class- Defining member function-Arrays within a class-Arrays of objects- Objects as function arguments- Friendly functions-Constructor and destructor.

UNIT IV - INHERITANCE, POINTER, VIRTUAL FUNCTION AND POLYMORPHISM

Single inheritance-Multilevel-Multiple inheritance-Hierarchical-Hybrid-Virtual base class-Abstract classes-Pointers- 'this' pointer-Virtual functions-Pure virtual functions.-Operator over loading- Rules for operator overloading.

UNIT V - MANAGING CONSOLE I/O OPERATIONS

C++ streams-Streams classes-Unformatted I/O operations-Formatted console I/O operations-Managing output with manipulators-Exception handling- Basics of exception handling.

TEXT BOOKS

1. E. Balagurusamy, (2008), "Object Oriented Programming with C++", Tata McGraw-Hill Publication.

REFERENCE

1. Herbert Schildt, (2003), "C++: The Complete Reference", Tata McGraw publication.

LESSON PLAN

Subject Name: **OBJECT ORIENTED PROGRAMMING USING C++**
Subject Code: **UCA18202**

UNIT I		
Lecture Hour	**Description**	**Reference With Chapter**
1	Object Oriented Programming Paradigm	Chapter 1: 1.3
2	Basic concepts of Object Oriented Programming Systems	Chapter 1: 1.4
3	Benefits of Object Oriented Programming	Chapter 1: 1.6
4	What is C++?	Chapter 2: 2.1
5	Simple C++ program and its concepts	Chapter 2: 2.3
6	Structure of C++ program	Chapter 2: 2.6
7	Creating a source file, compiling and linking	Chapter 2: 2.7, 2.8

UNIT II		
Lecture Hour	**Description**	**Reference With Chapter**
8	Tokens, keywords, identifiers and constants	Chapter 3: 3.1, 3.2, 3.3, 3.4
9	Basic datatypes	Chapter 3: 3.5
10	User- defined datatypes	Chapter 3: 3.6
11	Derived datatypes	Chapter 3: 3.7
12	Type compatibility	Chapter 3: 3.10
13	Declaration of variables	Chapter 3: 3.11
14	Dynamic initialization of variables	Chapter 3: 3.12
15	Reference variables	Chapter 3: 3.13
16	Operators in C++	Chapter 3: 3.14, 3.15
17	Operators in C++	Chapter 3: 3.16, 3.17
18	Manipulators	Chapter 3: 3.18
19	Typecast operator	Chapter 3: 3.19
20	Implicit conversion	Chapter 3: 3.22
21	Operator overloading	Chapter 3: 3.23
22	Control structures	Chapter 3: 3.25
23	Control structures	Chapter 3: 3.25

UNIT III		
Lecture Hour	**Description**	**Reference With Chapter**
24	Functions in C++	Chapter 4: 4.1, 4.2, 4.3
25	Functions in C++	Chapter 4: 4.5, 4.6
26	Functions in C++	Chapter 4: 4.7, 4.8, 4.9
27	Function Overloading	Chapter 4: 4.10
28	Specifying a class	Chapter 5: 5.1, 5.2, 5.3
29	Defining member function	Chapter 5: 5.4
30	Defining member function	Chapter 5: 5.7, 5.8
31	Array within a class	Chapter 5: 5.9
32	Arrays of objects	Chapter 5: 5.13
33	Objects as function arguments	Chapter 5: 5.14
34	Friendly functions	Chapter 5: 5.15
35	Constructors	Chapter 6: 6.1, 6.2
36	Constructors	Chapter 6: 6.3, 6.4
37	Constructors	Chapter 6: 6.5, 6.6
38	Constructors	Chapter 6: 6.7, 6.8
39	Constructors	Chapter 6: 6.9, 6.10
40	Destructors	Chapter 6: 6.11

UNIT IV		
Lecture Hour	**Description**	**Reference With Chapter**
		Chapter 8: 8.1,
41	Single inheritance	8.2, 8.3, 8.4
42	Multilevel inheritance	Chapter 8: 8.5
43	Multiple Inheritance	Chapter 8: 8.6
44	Hierarchical inheritance	Chapter 8: 8.7
45	Hybrid inheritance	Chapter 8: 8.8
46	Virtual base class	Chapter 8: 8.9
47	Abstract class	Chapter 8: 8.10
48	Pointers	Chapter 9: 9.1, 9.2, 9.3, 9.5
49	This pointer	Chapter 9: 9.4
50	Virtual functions	Chapter 9: 9.6
51	Pure virtual functions	Chapter 9: 9.7
52	Operator overloading	Chapter 7: 7.1, 7.2, 7.3, 7.4
53	Operator overloading	Chapter 7: 7.5, 7.6, 7.7, 7.8
54	Rules for Operator Overloading	Chapter 7: 7.8

UNIT V		
Lecture Hour	**Description**	**Reference With Chapter**
55	C++ streams, Stream classes	Chapter 10: 10.1, 10.2, 10.3
56	Unformatted I/O Operations	Chapter 10: 10.4
57	Formatted console I/O Operations	Chapter 10: 10.5
58	Managing O/P with manipulators	Chapter 10: 10.6
59	Exception handling	Chapter 13: 13.1, 13.2
60	Basics of Exception handling	Chapter 13:13.3