

बरकतउल्ला विश्वविद्यालय,भोपाल

***Barkatullah University,
Bhopal***

As per model syllabus of U.G.C. New Delhi, Approved
Microbiology BOS.



विज्ञान संकाय
कम्प्यूटर साइंस

**Faculty of Science
Syllabus & Prescribed Books**

**B.Sc. Semester Examination 2010-11
IV Semester (Computer Science)
(10+2+3)**

कुलसचिव

बरकतउल्ला विश्वविद्यालय,भोपाल

रु. 50/-

Barkatullah University, Bhopal

B.Sc. Computer Science

Semester IV

Code No.	Paper	Marks (Theory + CCE)
CS401	Object Oriented Programming C++	35+15
CS402	HTML	35+15
<i>Practical</i>		
CS403	Programming in C++/ HTML	50
Project (External Assessment)		50

Barkatullah University, Bhopal
Semester – Wise Scheme for B Sc (Computer Science)

Semester IV

Paper – I

Object Oriented Programming using C++

Max Marks: 35

UNIT I

Principles of OOP, procedure oriented programming vs. object oriented programming, basic concepts, advantages, application of OOPs, object oriented languages.

Beginning with C++: structure of C++ program, creating, compiling, linking & executing a C++ program, Tokens, expressions & control structures, keywords, identifiers, basic data types, user-defined data types, derived data types, symbolic constants, type compatibility, variable declaration, dynamic initialization of variables, reference variables, operators in C++.

UNIT II

Scope resolution operator, memory management operators, manipulators, type cast operators, operator precedence, control structures.

Main function , function prototyping, call by reference, call by value, inline functions, default arguments, constant arguments, function overloading.

Introduction to constructors and destructors, operator overloading & type conversions.

UNIT III

Specifying a class, defining member functions, making an outside function inline, private member function; array within a class, memory allocation for objects , static data members, static member functions, array of objects, objects as function arguments, returning objects.

UNIT IV

Friend functions, Inheritance and its various types along with programs, introduction to pointers, pointers to object, pointers to derived classes, virtual functions and polymorphism, this pointer.

UNIT V

Managing console I/O operations: introduction, C++ streams, C++ stream classes, unformatted I/O operations, formatted console I/O operations, managing O/P with manipulators. Working with Sequential Date Files: Introduction, opening & closing a file, detecting EOF, sequential input & output operations.

TEXT BOOK:

1. Object oriented programming with c++ by E. Balaguruswamy.

REFERENCES :

1. Programming in C++ by Robert Lafore
2. C++ - The complete reference by Herbert Schildt (TMH)
3. Programming with C++ - Schaum Series
4. OOP's concepts by David Parsson .

Barkatullah University, Bhopal
Semester – Wise Scheme for B Sc (Computer Science)
Semester IV
Paper - II
HTML

Max Marks: 35

UNIT I

Introduction to Webpages, Browser and HTML, HTML tags: paired tags, singular tags. Structure of an HTML: Document Head and Document Body, Titles and Footers, using <meta> in Document Head. Basic Text formatting: Paragraph breaks, Line breaks, Heading styles, drawing lines.

UNIT II

Text styles: Bold, Italics, Underlines. Other text effects: Centering, Spacing.

List: Unordered List, Ordered List, Definition Lists. Using special tags: <Marquee>, <Blockquote> and <Address> Using common character entities starting with &.

Adding graphics to HTML documents: using the attributes – Border, Width and Height attribute, align and ALT attribute.

UNIT III

Tables: introduction, using the width, border, cellpadding, cellspacing, BGcolor, colspan, rowspan attributes.

Linking documents: Links, External and Internal Documents References, Hyperlinking to a HTML file, linking to a particular location in a separate document, Images as hyperlinks, Image Maps.

UNIT IV

Frames: introduction, frameset and frame tag.

Forms used by a website: form object, form object's methods, properties and methods of Form elements. Text elements, password element, button element, submit and reset button elements, checkbox element, radio element, text area element, select and option element.

UNIT V

Dynamic HTML: Cascading Style Sheets: Font attribute, Color , background , Text, Border, Margin related attributes ,List Attributes.

Layers – Concept of layers, Positioned and Inflow Layers

TEXT BOOKS:

1. HTML, DHTML, JavaScript , Perl CGI by Ivan Byross
2. The Complete reference HTML by Thomas Powell.

REFERENCE BOOKS:

1. World Wide Web Design with HTML – by C Xavier.
2. Dynamic HTML in action – by Petrovsky (TMH).
3. HTML 4.0 for the World Wide Web – by Castro (AWI).