

# **COURSE STRUCTURE, SYLLABUS AND SCHEME OF EXAMINATION**

**FOR**

## **BACHELOR OF COMPUTER APPLICATION (BCA)**

**2020-21 Onwards**



**Department of Computer Applications**

# VBS PURVANCHAL UNIVERSITY, JAUNPUR

DEPARTMENT OF COMPUTER APPLICATIONS

VBS PURVANCHAL UNIVERSITY, JAUNPUR

## STUDY & EVALUATION SCHEME

BCA (Bachelor of Computer Applications)

### SEMESTER V

| SUB CODE | SUBJECT               | L | T | P | TA/CT/ESE | TOTAL |
|----------|-----------------------|---|---|---|-----------|-------|
| BCA-501  | WEB DESIGN            | 3 | 1 | 0 | 10/20/70  | 100   |
| BCA-501  | DATA MINING           | 3 | 1 | 0 | 10/20/70  | 100   |
| BCA-501  | .NET FRAMEWORK AND C# | 3 | 1 | 0 | 10/20/70  | 100   |
| BCA-P51  | BCA PROJECT - I       |   |   | 3 | 100       | 100   |
| BCA-L52  | WEB DESIGN LAB        | 0 | 0 | 3 | 30/70     | 100   |
| BCA-L53  | .NET LAB              | 0 | 0 | 3 | 30/70     | 100   |

**TOTAL – 600**

**WEB DESIGN  
BCA 501****Unit – I**

**Overview of Internet:** Introduction to Internet and WWW, Internet protocols like TCP/IP, http, telnet and ftp, url, email, domain name, Web Browsers, Search Engines, Counters, Chat & Bulletin Board Services.

**Unit – II**

**Principles of Web Design:** Key issues to be considered in web site design.

**Structure of a Web Page:** Introduction to HTML, Elements of HTML syntax, Head and Body sections, Building HTML documents, Inserting text, images, hyperlinks, Backgrounds and Color Control, ordered and unordered lists, content layout & presentation.

**HTML Tags :** Use of Different HTML tags in web pages.

**Table Handling :** Table layout & presentation, constructing tables in a web page, developing a web page in a table.

**Unit – III**

**HTML Editors & Tools:** Use of different HTML editors and tools like Netscape Communicator and Microsoft Front Page etc.

**Graphical and Animation Techniques:** Use of Different graphical and animation tools like Adobe Photoshop, Gif Animator etc.

**Unit – IV**

**Interactivity:** Client Server Model, Static & Dynamic Web pages, Creating forms, CGI, Role of Databases in web applications.

**Unit – V**

**Web Technologies :** Overview of various web technologies and their applications like Java Script, active server pages, Macromedia flash, embedding java applets in a web page etc.

**Books:**

1. C. Xavier, "World Wide Web Design with HTML", Tata McGraw Hill.
2. Joel Sklar, "Principles of Web Design", Web Warrior series.
3. Rick Dranell, "HTML4 unleashed", Techmedia Publication.
4. Shelly Powers, "Dynamic Web Publishing Unleashed", Techmedia.
5. Don Gosselin, "JavaScript", Vikas Publication
6. Mark Swank & Drew Kittel, "World Wide Web Database", Sams net.

**DATA MINING  
BCA 502****UNIT-I**

**Introduction** - What is Data mining , Data mining - important Data mining - various kind of Data mining Functionalities – Various kinds of Patterns Pattern Interesting Classification of Data mining Systems Data mining Task Primitives Integration of Data Mining System Major issues in Data Mining.

**UNIT-II**

**Data Processing** - Process the Data Descriptive Data Summarization – Measuring Central Tendency Dispersion of Data Graphic Displays of –Basic Descriptive Data Summaries Data Cleaning Data Integration and Transformation data Reduction Data Discrimination – Concept Hierarchy Generation

**UNIT-III**

Data Warehouse OLAP Technology An overview - Data Warehouse Multidimensional Data Model Data Warehouse Architecture Data Warehouse Implementation From Data Warehouse to Data mining

**UNIT-IV**

**Mining** – Frequent Patterns Associations Correlations - Basic Concepts Road Map Efficient Scalable Frequent Item set Mining methods Mining – Various Kinds of Association rules Analysis - Association mining to Correlation Constrain Based Association mining

**UNIT-V**

**Applications Trends** - Data mining Applications Data mining – System Products Research Prototype Additional Themes on Data Mining Social impact of Data mining Trends in Data mining.

**Book :**

- Data Mining ( Concepts and Techniques ), Author : Jiawei Han and Micheline Kamber Publishers : Morgan Kaufmann Publishers ( An imprint of Elsevier )

**.NET FRAMEWORK AND C#  
BCA 503****Unit – I**

**The .Net Framework:** Introduction, Common language, Run-time, Common type system, Common language specification, The base class library, The .Net class library intermediate language, Just-in-time compilation, Garbage collection

**Unit – II**

**C# Basics:** Introduction, Data types, Identifiers, Variables and Constants, C# statements, Object oriented concept, Object and classes, Array and Strings,

**Unit – III**

**C# Using Libraries:** Namespace systems, Input-output, Multi-threading, Networking and Sockets, Data handling, Windows forms, C# in Web application, Error Handling.

**Unit – IV**

**Advanced Features using C#:** Web services, Window services, Messaging reflection, COM and C#, Localization.

**Unit – V**

**Advanced Features using C#:** Distributed Application in C#, XML and C#, unsafe mode, Graphical device interface with C#, Case study.

**Book:**

- Shibi Panikkar and Kumar Sanjeev, “C# with .Net Framework”, Firewall Media.
- Shildt, “C#: The Complete Reference”, TMH
- Fergal Grimes, “Microsoft .Net for Programmers”, SPD.