

VEER NARMAD SOUTH GUJARAT UNIVERSITY

Syllabus

MCA(5TH Semester)

PAPER : 503 : Advanced Java Programming

1. **Networking**
 - 1.1 Inetaddress
 - 1.2 Datagrams
 - 1.3 Socket for Clients
 - 1.4 Socket for servers
 - 1.5 Client Server Interaction with Stream Socket Connection
 - 1.6 URL Manipulation

2. **Java Database Connectivity**
 - 2.1 Introduction
 - 2.2 Data Hierarchy
 - 2.3 Files and Streams
 - 2.4 Creating Sequential Access Files
 - 2.5 Reading Data from a sequential Access Files
 - 2.6 Updating Sequential Access Files
 - 2.7 Random Access Files
 - 2.8 Creating Random Access Files
 - 2.9 Writing Data to Random Access Files
 - 2.10 Reading data from random Access Files

3. **Servlets**
 - 3.1 Introduction to Servlets
 - 3.2 Overview of servlet technology
 - 3.2.1 The servlet API
 - 3.2.2 HttpServlet Class
 - 3.2.3 HttpServlet Request Interface
 - 3.2.4 HttpServlet Response Interface
 - 3.3 Handling HTTP GET and POST requests
 - 3.4 Session Tracking
 - 3.5 Multitier Application

4. **Remote Method Invocation (RMI)**
 - 4.1 Introduction to RMI
 - 4.2 Difining Remote Interface
 - 4.3 Implementing the Remote Interface
 - 4.4 Define the client
 - 4.5 Compile and Execute the Server and client.

5. **JavaBeans**
 - 5.1 BeanBox Overview
 - 5.2 Preparing a class to be a JavaBean
 - 5.3 Creating JavaBeans
 - 5.4 Adding Beans to a BeanBox
 - 5.5 Connecting Beans with Events in the BeanBox
 - 5.6 Adding properties to a JavaBean
 - 5.7 BeanInfo Class
6. **Introduction to J2EE**
7. **Introduction to J2ME**

REFERENCES :-

1. **JAVA – How to Program** – Third Edition - Deitel & Deitel –Addition Wesley
2. **Java Server and Servlets : Building Portable Web Applications** – Peter Rossbach & Hendrick Schreiber – Addition Wesley
3. **Java Programming Advance Topics** – Joe Wigglesworth and Paula Lumby - Thomson Learning
4. **Core Java Volume – II Advance Features** – Cay S. Horstmann & Garry Cornell –Sun Microsystems Press (Prentice Hall)
5. **The Authorative Solution – James Goodwill - Developing Java Servlets** – Sams - Techmedia
6. **Java Servlet Programming** - Jason Hunter – O’reilly
7. **Enterprise JavaBeans, Fourth Edition** - Richard Monson-Haefel, Bill Burke, Sacha Labourey - O’reilly
8. **Jdbc Database Access With Java** - Graham Hamilton, Rick Cattell, Maydene Fisher - Addison Wesley Publishing Company.

VEER NARMAD SOUTH GUJARAT UNIVERSITY

Syllabus MCA (5TH Semester)

PAPER : 504 : Advanced Web Technology (ASP.NET Using C#)

- 1. Introduction to ASP.NET**
 - 1.1. What is ASP.NET
 - 1.2. Compiled code
 - 1.3. The Common Language Runtime
 - 1.4. True Object Oriented
 - 1.5. Error Handling
 - 1.6. Event Driven Programming
- 2. Introduction to C#**
 - 2.1. C# and .NET Architecture
 - 2.2. C# Basics
 - 2.3. Object-Oriented C#
- 3. Server Controls.**
 - 3.1. Post back
 - 3.2. Data Binding
 - 3.3. Web-Server Control
 - 3.4. Html Server Control
 - 3.5. Validation Control
- 4. Database Access.**
 - 4.1. Error Handling
 - 4.2. Database Access Using ADO.NET
- 5. Advanced ASP.NET**
 - 5.1. Communication with Web Browser
 - 5.2. Response Object
 - 5.3. Cookies
 - 5.4. Query-String and Form Collection
- 6. Web.Config**
 - 6.1. Session Management and Variable Scope
 - 6.2. Page Sub Classing
 - 6.3. User Control
 - 6.4. Advance Data Banding
 - 6.4.1. Data Gride
 - 6.4.2. Data Binding Events
 - 6.4.3. Data List
 - 6.4.4. Repeaters
- 7. Web Services.**
 - 7.1. Basics of Web Services
 - 7.2. Interacting with web Services
 - 7.3. Web Services technologies.

8. Adding E-Commerce Essentials.

8.1. XML Tools

8.1.1. XML TextReader

8.1.2. XML TextWriter

8.1.3. XML Document

8.1.4. Dataset

8.1.5. Email

9. Debugging and Optimization.

9.1 Debugging ASP.NET Application – Tracing

9.2 Optimization

9.3 Optimizing using catching

REFERENCES :-

1. **Professional ASP.NET 1.1** - Bill Evjen, Devin Rader, Farhan Muhammad, Scott Hanselman, Srinivasa Sivakumar – Wrox.
2. **Beginning ASP.NET 1.1 with Visual C#.NET 2003** - Chris Hart, Chris Ullman, Dave Sussman, John Kauffman – Wrox
3. **Professional ADO.NET** - Bipin Joshi, Donny Mack, Doug Seven, Fabio Claudio Ferracchiati, Jan D Narkiewicz, John McTanish, Julian Skinner, Kevin Hoffman, Matt Milner, Paul Dickinson, Warren Wiltsie – Wrox.
4. **Magic of ASP.NET with C#** – Kumar Sanjeev, Shibi Panikkar # - Firewall Media
5. **Special Edition Using ASP.NET** – Richard Leinecker – Pearson Education.
6. **ASP.NET A Beginner's guide**– Dave Mercer – TMH
7. **Pro Asp.Net in C#: From Professional to Expert** – John Franklin – Apress, Inc..
8. **ASP.NET for Developers** – Amundsen - Tecmedia
9. **Developing Web Applications with ASP.NET and C#** - Hank Meyne - Welly
10. **Beginning ASP.NET 1.1** – Chris Hart, Chris Ullman, David Sussman, John Kauffman – Wrox.

VEER NARMAD SOUTH GUJARAT UNIVERSITY

Syllabus MCA(5TH Semester)

PAPER : 505 : Open Source Web Based Programming (PHP/MySql)

- 1. Introduction to LINUX**
- 2. LINUX Architecture**
- 3. Installation of PHP, MySql and Apache Web Server**
- 4. Introduction to Advanced Web Programming with PHP**
- 5. Writing PHP Programs**
- 6. Loops and Arrays**
- 7. PHP functions**
 - 7.1. String Functions
 - 7.2. Array Functions
 - 7.3. Mathematical Functions
 - 7.4. Graphics Library (GD Support)
 - 7.5. File System Functions
 - 7.6. Date and Time Functions
 - 7.7. Misc. Function
- 8. Error Handling**
- 9. Object Oriented Features of PHP**
- 10. Classes and Objects**
 - 10.1. Use Of constructors
 - 10.2. Serialization
- 11. File and Directory Handling**
- 12. MySQL Database Server**
 - 12.1. Configuring the MySQL Server
 - 12.2. Starting MySQL Server
 - 12.3. MySQL Tables
 - 12.4. Displaying MySQL Database
 - 12.5. Adding and removing user access
 - 12.6. Checking and fixing database
- 13. Advance PHP programming**
 - 13.1. XML
 - 13.2. Mail
 - 13.3. Simple invoice with credit card payment via PayPal,
 - 13.4. PHP-generated Adobe Acrobat documents
- 14. File Server**
 - 14.1. NFS
 - 14.2. Samba
 - 14.3. Netware
- 15. Mail Server**
 - 15.1. Introduction to SMTP and sendmail
 - 15.2. Installing and running sendmail

- 15.3. Configuring sendmail, Introducing Postfix
- 15.4. Getting mail from the server (POP)
- 15.5. Administering a mailing list

16. FTP Server

- 16.1. Understanding FTP server, Secure FTP server

17. Web Server

- 17.1. Introduction to web server.
- 17.2. Configuring Apache web server.
- 17.3. Starting and stopping web server, Monitoring server activities.

REFERENCES :-

1. **Beginning PHP 4 Databases** – Christopher Scollo, Harish Rawat, Deepak Thomas, Chris Lea, Sanjay Abraham, Andrew Hill & Jim Hubbard - Wrox Press Inc, October 2000
2. **PHP MySQL Website Programming** - Chris Lea, Mike Buzzard, Jessey White-Cinis & Dilip Thomas - Wrox Press Inc, Mar 2003
3. **PHP Black Book** - Peter Moulding - The Coriolis Group, October 2001
4. **MySQL/PHP Database Applications** - Jay Greenspan & Brad Bulger - John Wiley & Sons, January 2001
5. **PHP MySQL Website Programming: Problem - Design – Solution**
- Chris Lea, Mike Buzzard, Jessey White-Cinis & Dilip Thomas - Apress, 2003
6. **Essential PHP for Web Professionals** - Christopher Cosentino - Prentice Hall, October 2000
7. **PHP MySQL Website Programming** - Chris Lea, Mike Buzzard, Jessey White-Cinis & Dilip Thomas - Wrox Press Inc, Mar 2003
8. **SAMS Teach Yourself PHP4 in 24 Hours (2nd edition)** - Matt Zandstra - Sams, Dec 2001