

**Paper No.: 501**

**Paper Title: PHP MYSQL**

**1. Introduction to PHP**

- 1.1 Installation of PHP and mySql
- 1.2 PHP configuration in IIS & Apache Web Server and features of PHP

**2. Writing PHP**

- 2.1. How PHP code is parsed
- 2.2. Embedding PHP and HTML
- 2.3. Executing PHP and viewing in Browser
- 2.4. Data types
- 2.5. Operators
- 2.6. PHP variables: static and global variables
- 2.7. Comments in PHP

**3. Control Structures**

- 3.1. Condition statements
  - 3.1.1. If...Else
  - 3.1.2. Switch
  - 3.1.3. ? operator
- 3.2. Loops
  - 3.2.1. While
  - 3.2.2. Break Statement
  - 3.2.3. Continue
  - 3.2.4. Do...While
  - 3.2.5. For
  - 3.2.6. For each
- 3.3. Exit, Die, Return
- 3.4. Arrays in PHP

**4. Working With Data**

- 4.1. FORM element, INPUT elements
- 4.2. Validating the user input
- 4.3. Passing variables between pages
  - 4.3.1. Passing variables through a GET
  - 4.3.2. Passing variables through a POST
  - 4.3.3. Passing variables through a REQUEST

**5. Functions**

- 5.1. Built-in functions
  - 5.1.1. String Functions: chr, ord, strtolower, strtoupper, strlen, ltrim, rtrim, substr, strcmp, strpos, strrpos, strstr, stristr, str\_replace, strrev, echo, print
  - 5.1.2. Math Functions: abs, ceil, floor, round, fmod, min, max, pow, sqrt, rand

- 5.1.3. Date Functions: Date, getdate, setdate, Checkdate, time, mktime
- 5.1.4. Array Functions: count, list, in\_array, current, next, previous, end, each, sort, rsort, assort, array\_merge, array\_reverse
- 5.1.5. File Handling Functions: fopen, fread, fwrite, fclose, file\_exists, is\_readable, is\_writable, fgets, file, file\_get\_contents, file\_put\_contents, ftell, fseek, rewind, copy, unlink, rename
- 5.1.6. Miscellaneous Functions: define, constant, include, require, header, die

5.2. User Defined Functions

**6. Handling sessions and cookies**

- 6.1. Concept of Session
- 6.2. Starting session
- 6.3. Modifying session variables
- 6.4. Unregistering and deleting session variable
- 6.5. Concept of Cookies
- 6.6. Handling of Cookies

**7. How to upload files**

**8. Introduction of mySql**

- 8.1. Types of tables in mySql
- 8.2. Query in mySql: select, insert, update, delete
- 8.3. Truncate
- 8.4. Alias
- 8.5. Order by
- 8.6. Database connectivity of PHP with mySql

**Reference Books:**

- 1. Core PHP Programming by Leon Atkinson : Pearson publishers
- 2. The complete Reference PHP by Stever Holzner : McGraw Hill
- 3. Beginning PHP 5.0 Database by Christopher Scollo, Harish Rawat, Deepak Thomas, Publisher: WROX press
- 4. PHP – A beginners Guide By: Ashok Appu Publisher: Wiley
- 5. PHP 5.0 and MySql Bible Tim Converse, Joyce Park, Clark Morgan, Publishers: John Wiley & Sons
- 6. MySql Bible by Steve Suehring Publisher: John Wiley & Sons
- 7. PHP Black Book by Peter Moulding
- 8. PHP 5 and Mysql – Tim converse, Joyce Park and Clark Morgan – Bible Wiley
- 9. Beginning PHP 5.3 by Matt Doyle - By Wrox Publication

**Paper No.: 502**

**Paper Title: UNIX & SHELL PROGRAMMING**

**1. Introduction**

- 1.1. Features
- 1.2. System Structure
- 1.3. Shell & its Features
- 1.4. Kernel
- 1.5. Architecture of the UNIX OS
- 1.6. Kernel Data Structure

**2. Overview**

- 2.1. Logging in & out
- 2.2. I node and File Structure
- 2.3. File System Structure and Features
- 2.4. Booting Sequence & init process
- 2.5. File Access Permissions

**3. Shell Programming**

- 3.1. Environmental & user defined variables
- 3.2. Argument Processing
- 3.3. Shell's interpretation at prompt
- 3.4. Arithmetic expression evaluation
- 3.5. Control Structure
- 3.6. Redirection
- 3.7. Background process & priorities of process
- 3.8. Conditional Execution
- 3.9. Parameter & quote substitution

**4. Advanced Shell Programming**

- 4.1. Filtering utilities
- 4.2. Awk.
- 4.3. Batch Process
- 4.4. Splitting, comparing, sorting, Merging & Ordering Files.
- 4.5. Communications with other users.

**5. Editors and utility**

- 5.1. Link Editor (ed)
- 5.2. Screen Editor tutorial (Vi)
- 5.3. Fsock Utility

**Reference Books:**

**VEER NARMAD SOUTH GUJARAT UNIVERSITY – SURAT**

**Bachelor of Computer Application (B.C.A) 3<sup>rd</sup> Year**

**Syllbus**

**T. Y. B. C. A. - Semester 5**

**Effective From: June-2011**

1. Stephen G Kochan, Patrick Wood, Unix Shell Programming, 3<sup>rd</sup> Edition – Sams Publishing
2. Dale Dougherty, Arnold Robbins, sed & awk, 2<sup>nd</sup> Edition – O'Reilly Media
3. Kernighan & Pike – The UNIX Programming Environment - PHI
4. M. J. Bach - The design of the UNIX OS –Prentice Hall
5. A. S. Godbole - Operating Systems - Tata McGrew Hill.
6. Vijay Mukhi - Working with UNIX BPB Publications
7. Vijay Mukhi - UNIX Shells – BPB Publications.
8. Das - UNIX System Concepts & Applications - Tata McGraw Hill.

**Paper No.: 503**

**Paper Title: Information System Application Development**

**1. As Is Studies**

- 1.1. Concept Of Applications
- 1.2. Constraints and Limitations
- 1.3. Desired Solutions

**2. Requirement Analysis : Concept & Principles**

- 2.1. Current Application Analysis
- 2.2. Fact Finding
- 2.3. Recording Outcomes
- 2.4. System Requirement Specification
- 2.5. Specification Review

**3. Business Blue Print**

- 3.1. Flow Diagram Of Application
- 3.2. Output Design
- 3.3. Input Design
- 3.4. Freezing Business Blue Print

**4. System Design**

- 4.1. Introduction
- 4.2. Module & Sequence
- 4.3. Selection Of Platforms
- 4.4. Effective Modular Design
- 4.5. Application Resources Requirement

**5. Information Systems Development**

- 5.1. Code Design
- 5.2. Test Data Preparations
- 5.3. Module Testing

**6. Application Change Over**

- 6.1. Integrated Testing
- 6.2. Data Creation & Conversion
- 6.3. Types of Changeover
- 6.4. User Training

**7. System Documentation And Maintenance**

- 7.1. Documentation Essentials
- 7.2. Documentation Methods
- 7.3. Developer and User Manuals
- 7.4. Review & monitoring Of Execution

7.5. Application Change Management

Case studies carried out in following Topics with DFD, System Flow & Structure Chart.

Online Applications (Reservation & Online Shopping), Inventory Management, Payroll System.

**Reference Books :**

1. Richard Fairley : System Analysis & Design - Galgotia Publications
2. Sstzinger, Jackson, Burd: System Analysis & Design in changing world
3. Prof. S. Parthasathy & Prof. B.W. Khalkar : System Analysis & Design & Introduction to S/W Engineering

**Paper No.: 504**

**Paper Title: Operating System - 2**

**1. Memory Management**

- 1.1. Memory Management Functions
- 1.2. Contiguous Allocation
  - 1.2.1. Partitioned Memory Static and Dynamic allocation
  - 1.2.2. Segmentation
- 1.3. Non-contiguous Allocation
  - 1.3.1. Paging Segmentation
  - 1.3.2. Demand Paging and Segmentation
  - 1.3.3. Allocation and Replacement Policies

**2. Process Management**

- 2.1. Process Management
- 2.2. Process Concept
- 2.3. Scheduling
- 2.4. Scheduling Algorithms
- 2.5. Process co-ordination
  - 2.5.1. Producer / consumer Problem
  - 2.5.2. Critical Section Problem
  - 2.5.3. Semaphores
  - 2.5.4. Inter Process Communication
  - 2.5.5. Deadlocks

**3. Device Management**

- 3.1. Device Management Function
- 3.2. Device Characteristics
- 3.3. Disk space Management
- 3.4. Allocation and Disk Scheduling Methods

**4. File Management**

- 4.5. File Management Functions.
- 4.6. File System and Directory Structure organization.
- 4.7. File Protection.

**Reference Books:**

- 1. Silberschatz - An OS Concept – Addition Wesley Publication
- 2. Tanenbaum & Woodhull – Operating Systems : Design and Implementation, 3<sup>rd</sup> Edition.
- 3. W. Stallings – An Operating Systems – Pearson Education
- 4. I.M.Flinn, A.M. Mchoes – Understanding Operating Systems – Thomson Learning
- 5. Donovan M. – Operating Systems - McGrew Hill Pub.
- 6. Crowley : Operating Systems : A design Oriented Approach – Tata McGraw Hill
- 7. S. Godbole – Operating Systems TMH.

**Paper No.: 505**

**Paper Title: ASP .NET**

**1. Introduction to ASP.NET**

- 1.1. What is ASP.NET
- 1.2. .Net framework 2.0
- 1.3. Compile Code
  - 1.3.1. Code Behind and Inline Coding
- 1.4. The Common Language Runtime
- 1.5. Object Oriented Concepts
- 1.6. Event Driven Programming

**2. Server Control**

- 2.1. Post back
- 2.2. Data binding
  - 2.2.1. Grid View
  - 2.2.2. List Box
  - 2.2.3. Data list
  - 2.2.4. Data binding Events
  - 2.2.5. Repeater
  - 2.2.6. Form view
- 2.3. Web Server Control
- 2.4. Html Server Control (basic HTML Server Control)
- 2.5. Validation Control
- 2.6. Master Page
- 2.7. Themes & CSS

**3. Database Access**

- 3.1. Introduction about ADO.NET
- 3.2. Introduction about Provider, Adapter, Reader ,Command Builder
- 3.3. Database Access using ADO.NET

**4. Client Server Communication**

- 4.1. Communications with Web Browser
- 4.2. Response Object
- 4.3. Cookies
- 4.4. Query String
- 4.5. Session Management and Variable Scope

**5. Advance ASP.NET**

- 5.1. Web.config
- 5.2. Sitemappath Server Control
- 5.3. User Control
- 5.4. User Profile



**6. Web Services.**

- 6.1. Basics of Web Services
- 6.2. Interacting with web services

**7. Error Handling**

- 7.1. Unstructured Error
- 7.2. Structured Error
- 7.3. Error handling in Database

**References :**

1. Professional ASP.NET 1.1. -Bill Evjen , Devin Rader , Farhan Muhammad, Scott Hanselman , Srivakumar – Wrox
2. Introducing Microsoft ASP .NET 2.0, Esposito - PHI
3. Professional ADO.NET – Bipin Joshi,Donny Mack, Doug Seven , Fabio Claudio Ferracchiati, Jan D Narkiewicz - Wrox
4. Special Edition Using ASP.NET – Richard Leineker – Person Education
5. The Complete Reference ASP.NET -Matthew MacDonald –TMH
6. ASP.NET – Black Book – dreamTech
7. Beginning ASP.NET 3.5 in C# and VB –Wrox-Imar Spaanjaars

**VEER NARMAD SOUTH GUJARAT UNIVERSITY – SURAT**

**Bachelor of Computer Application (B.C.A) 3<sup>rd</sup> Year**

**Syllbus**

**T. Y. B. C. A. - Semester 5**

**Effective From: June-2011**

**Paper No.: 506**

**Paper Title: Practical**

**All Students have to carry out practical work in Subjects – 501, 502 & 505**

**VEER NARMAD SOUTH GUJARAT UNIVERSITY – SURAT****Bachelor of Computer Application (B.C.A) 3<sup>rd</sup> Year****Syllbus****T. Y. B. C. A. - Semester 5****Effective From: June-2011****Teaching and evaluation scheme**

Paper No.	Title	Teaching Schedule	University Examination		Internal Examination		Total
		Lect./Prac. (Hrs.)	Duration (Hrs.)	Marks	Duration (Hrs.)	Marks	
501	PHP MYSQL	4.5	3	70	2	30	100
502	Unix & Shell Programming	4.5	3	70	2	30	100
503	Info. System Application Dev.	4.5	3	70	2	30	100
504	Operating System – 2	4.5	3	70	2	30	100
505	ASP .NET	4.5	3	70	2	30	100
506	Practical (Based on 501, 502 & 505)	9	5	140	3	60	100
TOTAL		31.5 Hrs./Week		500		200	700