

BHARATHIDASAN UNIVERSITY, TRICHIRAPALLI – 620 024**DIPLOMA IN OPEN SOURCE TECHNOLOGY**

(For the candidates to be admitted from the academic year 2007-2008 onwards)

Seme ster	Paper	Title of the Paper	Hours per Week	Exam. Hours	Marks
I	I	Introduction to Operating System	6	3	100
	II	Introduction to Web Server	6	3	100
	III	Operating System Lab	6	3	100
			18 hours		300
II	IV	MY SQL	6	3	100
	V	PRE HYPER PROCESSING	6	3	100
	VI	PRE HYPER PROCESSING & MY SQL Lab	6	3	100
			18 hours		300
			Total Marks		600

Paper –I Introduction to Operating System

Unit I

I. INSTALLATION AND CONFIGURATION.

Introducing Linux-Preparing to Install Linux-Installing Linux-Post-Installation Configuration-First Steps with Linux.

Unit I

II. SYSTEM ADMINISTRATION.

The X Window System-Managing Services-Managing Software and System Resources- Managing Users-Managing the Filesystem.

Unit III

III. SYSTEM SERVICES ADMINISTRATION.

Backing Up, Restoring, and Recovery-Printing Services-Network Connectivity-Managing DNS- Internet Connectivity.

Unit IV

IV. SYSTEM SERVICES ADMINISTRATION.

Apache Web Server Management-Administering Database Services in Red Hat Linux.-Secure File Transfer Protocol (FTP) Service-Handling Electronic Mail-News and Other Collaborative Communication.

Unit V

V. PROGRAMMING AND PRODUCTIVITY.

Introduction to C/C++ Programming Tools-Shell Scripting-Using Perl-Kernel and Module Management-Office Productivity Applications-Multimedia Applications-Using Emulators and Other Cross-Platform Tools in Linux.

Reference:

Red Hat Enterprise Linux 5 Administration Unleashed-By Tammy Fox-Sams Publishing

Paper –II Introduction to Web Server

Unit I

INSTALLING AND CONFIGURING YOUR APACHE SERVER.

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Getting Started-Acquiring and Installing Your Apache Server-Starting, Stopping, and Restarting-Configuration Directives-Configuration Utilities-.htaccess files-Per-Directory Configuration-Virtual Hosts.

Unit II

ADVANCED CONFIGURATION TECHNIQUES.

MIME and File Types-URL Mapping-Content Negotiation-Directory Indexing-Apache on Microsoft Windows-Performance Tuning.

Unit III

DYNAMIC CONTENT.

Handlers and Filters-CGI Programs-Server-Side Includes-mod_perl-PRE HYPER PROCESSING.

Unit IV

SECURITY AND AUDITING.

Apache Security-Security in Dynamic Content-Authentication, Authorization, and Access Control-SSL.-Web Spiders-Logging.

Unit V

MODULES.

Introduction to Apache Modules-Modules Included with Apache-Special-Purpose Apache Modules.

Reference

Apache Administrator's Handbook- Rich Bowen, Daniel Lopez Ridruejo, Allan Liska. Published by Sams.

PAPER III OPERATING SYSTEM LAB

1. Write a shell program to create a menu for copy, edit ,rename and delete a file.
2. Write a Shell program to generate menu creation.
3. Write a Shell program to prepare the E.B.Bill.
4. Write a unix program to generate file handling.
5. Write a Shell program for merging a file.
6. Write a unix program to find a given word in the specific file.
7. Write a Shell program for file checking and formatting and difference between two files.
8. Write a Shell program to perform sorting and unsorting the file name.
9. Write a Shell program to generate a fibonacci series.
10. Write a unix program to find out the sum of digits

SEMESTER II - Paper –IV - MY SQL

Unit 1. MySQL Syntax and Use.

MySQL Naming Rules-Character Set Support-Selecting, Creating, Dropping, and Altering Databases- Creating, Dropping, Indexing, and Altering Tables-Getting Information About Databases and Tables-Performing Multiple-Table Retrievals with Joins-Performing Multiple-Table Retrievals with Subqueries. Performing Multiple-Table Retrievals with UNION.

Unit 2. Working with Data in MySQL.

Categories of Data Values. MySQL Data Types-How MySQL Handles Invalid Data Values-Working with Sequences-Choosing Data Types-Expression Evaluation and Type Conversion.

Unit 3. Query Optimization.

Using Indexing-Loading Data Efficiently-Scheduling and Locking Issues-Introduction to MySQL Programming- Why Write Your Own MySQL Programs? -APIs Available for MySQL. -Choosing an API.

Unit 4. Introduction to MySQL Administration.

Overview of Administrative Duties. General Administration-Security. Database Repair and Maintenance-The MySQL Data Directory-Location of the Data Directory-Structure of the Data Directory- Relocating Data Directory Contents.

Unit 5. Database Backups, Maintenance, and Repair.

Performing Database Maintenance with the Server Running-General Preventive Maintenance- Making Database Backups-Copying Databases to Another Server-Checking and Repairing Database Tables-Using Backups for Data Recovery.

Reference

Sams Teach Yourself MySQL in 21 Days, 2nd EditionBy Anthony Butcher.

Published by Sams.

Paper –V - PRE HYPER PROCESSING

Unit I. WORKING WITH PRE HYPER PROCESSING FOR GENERAL WEB DEVELOPMENT.

Basic PRE HYPER PROCESSING Development-Arrays-
Regular Expressions-Working with Forms in PRE HYPER
PROCESSING-Advanced Form Techniques-Persistent Data
Using Sessions and Cookies-Using Templates.

Unit II. ADVANCED WEB DEVELOPMENT.

PEAR-XSLT and Other XML Concerns-Debugging and
Optimizations-User Authentication-Data Encryption.

Unit III. ADVANCED WEB DEVELOPMENT.

Object-Oriented Programming in PRE HYPER PROCESSING-
Error Handling-Working with HTML/XHTML Using Tidy-
Writing Email in PRE HYPER PROCESSING-Using PRE
HYPER PROCESSING for Console Scripting.

Unit IV. BUILDING APPLICATIONS IN PRE HYPER PROCESSING.

SOAP and PRE HYPER PROCESSING-Building WAP-
Enabled Websites-Working with the File System-Network I/O-
Accessing the Underlying OS from PRE HYPER
PROCESSING.

Unit V. WORKING WITH DATA IN PRE HYPER PROCESSING.

Introduction to Databases-Using MySQL with PRE
HYPER PROCESSING-Using SQLite with PRE HYPER
PROCESSING-PRE HYPER PROCESSING's dba
Functions.

Reference:

PRE HYPER PROCESSING 5 UnleashedBy John Coggeshall-Published
by Sams.

PAPER VI - Pre Hyper processing & My SQL Lab

1. Write server side PHP Program that displays marks, total, grade of a student in tabular format by accepting user input's for name, number and marks from a HTML form.
2. Write a PHP program that adds products that are selected from a web page to a shopping Cart
3. Write a PHP program to access the data stored in a my SQL table.
4. Write a PHP program interface to create a database and insert a table into it.
5. Write a PHP program using class to create a table.
6. Write a PHP program to upload a file to the server.
7. Write a PHP program to create a directory, and to used contents from the directory.
8. Write a Shell program to change the extension of a given file.
9. Write a Shell program to copy and paste the sgiven file.
10. Create a My SQL table and excute queries to read, add, remove, and modify a record from that table.
