

# FACULTY OF ENGINEERING & TECHNOLOGY

## SYLLABUS

FOR

### Post Graduate Diploma in Web Designing (P.G.D.W.D.) (Semester: I – II)

SESSION: 2016-17



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# GURU NANAK DEV UNIVERSITY AMRITSAR

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*Scheme for P. G. Diploma in Web Designing**Semester I*

<i>Paper</i>	<i>Paper Name</i>	<i>Theory</i>	<i>Practical</i>
Paper-I	Fundamentals of Computer & Operating Systems	50	50
Paper-II	Web Designing Tools	50	50
Paper-III	Introduction to Scripting Languages, Web Designing	50	50
Paper-IV	Programming in VB.NET	50	50
		<b>Total</b>	<b>= 400</b>

**Eligibility: Passed 10+2+3 system with atleast 45% marks in aggregate**

**SEMESTER – I****PAPER- I: Fundamentals of Computer & Operating Systems****Time: 3 Hrs.****M.M: 100****Theory: 50****Practical: 50****UNIT I****Instructions for Examiners:**

Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.

**Fundamentals of Computer:**

Introduction to computer, Applications of computer, Components of computers Input-output devices (key boards, mouse, track ball, light pen, cards, printers, plotters, scanners), Secondary storage devices (floppy disk, magnetic disk, Winches er disk, optical disk) Types of software, Translators (compiler, interpreter, assembler), Introduction to data communication and network.

**UNIT II****Introduction to Windows Vista:**

Parts of window screen (Desktop, window, icons), start menu, Taskbar settings, application & document window, anatomy of a window (Title bar, minimize, maximize button, control box, scroll bars, scroll buttons, scroll boxes), Window explorer (expansion, collapsing of directory tree, copying, moving, deleting files, folder, creating folders), About desktop icons (recycle bin, my computer, network neighborhood, briefcase), folder, shortcut creation, setting of screen saver, color settings, wallpaper, changing window appearance.

**SEMESTER – I****Operating System:**

Meaning of operating system, its functions, batch systems, real systems, multi programming, multitasking, single, multi user systems. Define dos ,Structure of Ms- Dos (description ' of booting files, steps to boot the system), hot & cold booting internal command ( cls, dir, date, time, vol, ver, copy con, type, ren, del, md, rd, d, path, prompt), external commands edit, attrib, backup, restore, chkdsk, diskcopy, dskcomp, deltree, edit, format, fdisk, find, label, more, xcopy, move, print, scandisk, sort, sys, doskey, tree) .

**UNIT III****Introduction to Unix:**

Explain the features of Unix system. Structure of Unix (Kernel,shell), Unix file system (data blocks, list, superblock, bootblock), Types of files (ordinary files, directory, special files), types of users (0-2), simple commands (cat, ls, ln, chmod, mail, who, who am I, cal pwd, date, ps, mkdir, cd, rmdir, rm, tput, clear). Piping, filters, batch processing, shell programming (Echo, read, case constructs). VI editor(opening it , inserting, modifying, deleting, saving files). Types of shells (bourne, c, r shell. Login & logout of unix session.

**References:**

Windows Based Computer Courses by Rachpal Singh & Gurvinder Singh.

Computer Fundamental: By Peter Norton.

**SEMESTER – I****Paper – II: Web Designing Tools****Time: 3 Hrs.****M.M: 100****Theory: 50****Practical: 50**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non–Programmable & Non–Storage type calculator in the subject/Papers.**

**UNIT I****Front Page 2000:****Introduction to Front page 2000:**

Frontpage window, various toolbar of frontpage.

Creating a web page using wizard, creating a web page, using template.

**UNIT II****Themes:**

Creating your own theme, Selecting a color scheme, selecting graphics, selecting text.

**Forms:**

Creating form using wizard, adding text boxes, adding radio buttons, adding check box, adding drop-down menus, adding pushbutton & pictures.

**UNIT III****Web page designing:**

Adding shared borders to the page, Giving title to a page, selecting a background for page, adding text to page, Hyperlink, turing text to heading, adding picture to the page, adding a clipart, adding navigation bars, Publishing your web page, making your web page searcheable.

**References:**

Learning Front Page 2000 by Ramesh Bangra

Khanna Book Publishing Co.Pvt.Ltd.

Learning to use Internet by Ernest Ackerman.

**SEMESTER – I****PAPER-III****Introduction to Scripting Languages, Web Designing****Time 3: Hrs.****M.M: 100****Theory: 50****Practical: 50****Instructions for Examiners:**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks.**

**The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.**

**UNIT I**

Introduction to HTML, DHTML

Introduction to the concept of Hypertext and Hypermedia.

HTML Tools.

HTML Tags, Hypertext and Anchors.

**UNIT II**

Different Image Formats and their creation.

Tables – Table based tags, Adding image within tables.

Forms and Form Controls, Processing of Forms.

**UNIT III**

Frames – Formatting of Frames, Nested Frames, In-line Frames.

Style Sheets – Combining with HTML documents, Properties of Style Sheet.

Multimedia – Adding GIF, Sound and Videos

Publishing a Web-site

**References:**

Web-designing & Scripting Languages by Manohar Singh, AP Publishers.

A Text Book of Scripting Languages by Rachhpal Singh & Mamta Verma, Kalyani Publishers.

**SEMESTER – I****PAPER-IV****Programming in VB.NET****Time 3: Hrs.****M.M: 100****Theory: 50****Practical: 50****Instructions for Examiners:****Eight questions will be set and the examiner will have to attempt any five.****UNIT I**

Introduction to .NET

What is .NET, Introduction to .NET Framework, Basic Functionality of CLR, MSIL, Platform Independence, language Interoperability

VB.NET Language

Features of VB.Net, Writing Programs in VB.Net, Compiling and Execution from Command Prompt

Data Types, Expressions and Operators

Option Statements, Type Casting, Built-in Functions in VB.Net, Sub Programs and Working with Arrays

Windows Applications

Basic Controls and Event Driven Programming, Programming with Advanced Controls

**UNIT II**

Error Handling

Error Handling, Error Categories, Debug and Trace Classes, Code Optimization, Testing Phases and Strategies

Data Access with ADO.NET

Introduction to Access Libraries DAO,RDO,ADO, Limitation of ADO, ADO.Net Objects and Usage, ADO.Net Managed Providers, Data Reader, Data Adapter and DataSet, Data Relation and DataSet, Data Binding, Connected and Disconnected Recordsets, Connection Pooling, ADO.Net Exceptions, Using Stored Procedures, N-Tier Database Application, ADO.Net and XML,

**UNIT III**

File Stream

Crystal Reports

Setup and Deployment

**Reference:**

VB.NET Black Book

*Scheme for P. G. Diploma in Web Designing**Semester II*

<b>Paper</b>	<b>Paper Name</b>	<b>Theory</b>	<b>Practical</b>
Paper-I	Network Concepts and Management (Hardware, Software, setting in LINUX/UNIX/NT environment)	50	50
Paper-II	Programming in JAVA	50	50
Paper-III	Internet Applications	50	50
Paper-IV	PC Computing	50	50
		<b>Total</b>	<b>= 400</b>

**SEMESTER – II****PAPER-I****Network Concepts and Management  
(Hardware, Software, setting in LINUX/UNIX/NT environment)****Time 3: Hrs.****M.M: 100****Theory: 50****Practical: 50****Instructions for Examiners:**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.**

**UNIT I****Introduction:**

Network H/W and Software requirement – Network topologies, OSI reference model, TCP/IP model.

**Design Issues:** ISDN, ATM, Routers, hub, switches.

**UNIT II****Network Security:**

Data compression techniques, cryptography, IP addressing schemes.

**NT Administration:**

Account policies, creating a user account, group membership, administration of share through server manager Primary Domain controller, backup, domain controller.

**UNIT III****Unix:**

Unix features, unix system architecture, permission mode, pipes & filters, Commands: Cat, Is, In, chmod, mail, write, who, cal, pwd, date, Ps, mkdir, cd, mdir, rm, clear

**Introduction to Linux:**

Comparative study of NT server, Unix and Linux.

**References:**

1. Tannanbrum: Computer Network, Prentice Hall, 1992, 3rd
2. Robert Reinstein, et al: Windows NT Trouble Shooting and Configuration, Techmedia.

**SEMESTER – II****Paper-II  
PROGRAMMING IN JAVA****Time 3: Hrs.****M.M: 100****Theory: 50****Practical: 50**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.**

**UNIT I**

Evolution of Java

Importance of JAVA to Internet, Features of JAVA, Bytecode, Object Oriented Approach.

Data Types, Variables and Arrays

Data types, Declaration of Variable, Type Conversion and Casting, One Dimensional and Multidimensional arrays

**UNIT II**

Operators and Control Structures

Arithmetic, Bitwise, Relational, Boolean, Assignment Operators, Operator precedence, Selection Statements, Iteration Statements, Jump statements.

Classes

Class Fundamentals, Declaring objects, introducing methods, constructors, this keyword, Overloading constructors, Recursion, Nested and Inner classes.

**UNIT III**

Inheritance

Basics, Creating Multilevel hierarchy, Method Overriding, Abstract Classes.

Packages and Interface

Packages, Access Protection, Importing Packages, Interfaces, Defining, Implementing, Applying Interfaces, Extending Interfaces

Exception Handling

Fundamentals, Exception Types, uncaught exceptions, try and catch.

**Reference:**Patrick Naughton & Herbert Schildt: The Complete Reference Java 2, Tata McGraw Hill Edition  
Balagurusamy: Programming in JAVA.

**SEMESTER – II****Paper – III  
Internet Applications****Time 3: Hrs.****M.M: 100****Theory: 50****Practical: 50**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.**

**UNIT I**

**Introduction:** About internet and its working, business use of internet, services offered by internet, evaluation of internet, internet service provider (ISP), windows environment for dial up networking (connecting to internet), audio on internet, internet addressing (DNS) and IP addresses).

**E-Mail Basic Introduction;** Advantage and disadvantage, structure of an e-mail message, working of e-mail (sending and receiving messages), managing e-mail (creating new folder, deleting messages, forwarding messages, filtering messages) Implementation of outlook express.

**UNIT II**

**Internet protocol:** Introduction, file transfer protocol (FTP), Gopher, Telnet, other protocols like HTTP and TCPIP.

**New group:** Basic concepts of newsgroup, connecting to a news server, subscribing to newsgroup, organization of articles, reading messages, posting replies and new messages, managing newsgroup and messages.

**UNIT III**

**WWW:** Introduction, working of WWW, Web browsing (opening, viewing, saving and printing a web page and bookmark), web designing using HTML, DHTML with programming techniques.

**Search engine:** About search engine, component of search engine, working of search engine, difference between search engine and web directory.

**Intranet and extranet:** Introduction, application of intranet, business value of intranet, working of intranet, role of extranet, working of extranet, difference between intranet and extranet.

**Reference:**

Internet and its Applications by Ackerman.

Internet – The Complete Reference

**SEMESTER – II****PAPER IV: PC COMPUTING****Time: 3 Hrs.****M.M: 100****Theory: 50****Practical: 50****Instructions for Examiners:**

**Eight questions are to be set. Candidates must be asked to attempt any five. Each question carries equal marks. The Students can use only Non Programmable & Non Storage type calculator in the subject/Papers.**

**UNIT I**

**MS-Word:** Introduction to Ms-Office, Ms-Access, Ms Excel. Parts of window of word (Title bar, menu bar, status bar, ruler) , Creation of new documents, opening document ,insert a document into another document .Page setup, margins, gutters, font properties, Alignment, page breaks, header footer .deleting ,moving, replace, editing text in document. Saving a document, spell checker, printing a document. Creating a table, entering and editing Text in tables. Changing format of table, height width of row or column. Editing, deleting Rows, columns in table. Borders, shading, Templates, wizards, Drawing objects, mail merge

**UNIT II**

**MS-Power Point:** Introduction to Ms power point. Power point elements (templates wizard Views, color schemes ,Exploring power point menu (opening & closing menus, working With dialogues boxes) , adding text, adding title, moving text area, resizing text Boxes, adding pictures. Starting a new slide, saving presentation, printing slides .Views (slide View slide sorter, notes view, outline view) .Formatting & enhancing text formatting, Choosing transitions. Creating a graphs, displaying slide show, adding multimedia .Slide transitions. Timing slide display, adding movies & sounds. Using a pick look Wizards to change format.

**SEMESTER – II****UNIT III**

**MS-Excel:** Introduction to Worksheet/Spreads, Features of excel, Describe the excel Window, different functions on different data in excel, creation of graphs. editing it and formatting. changing chart type to 2d chart or 3d chart, creation of worksheet, adding, deleting, moving the text in worksheet, linking different sheets, sorting the data, querying the data, filtering the data (auto and advance filters), What-if analysis, printing a worksheet.

**MS-Access:** Introduction, Understanding Databases. Creating the tables. entering records in table, deleting table, modifying table fields, linking tables, Queries. Forms, formatting forms, relating a form to tables, Reports(building reports, formatting report. displaying the information of table using reports Adding Graphs to your reports. .

**References:**

1. Window Based Computer Courses by Gurvinder Singh & Rachpal Singh, Kalyani Publishers.
2. PC Computing By R.K .Taxali