OUTLINES OF TESTS, SYLLABI AND COURSES OF READING

FOR

POST GRADUATE DIPLOMA IN ADVANCE WEB DESIGNING (PGDAWT)

(Semester I & II)

FOR

SESSIONS 2018-19 and 2019-20

PUNJABI UNIVERSITY
PATIALA – 147 002

POST GRADUATE DIPLOMA IN ADVANCE WEB DESIGNING

SESSIONS 2018-19 and 2019-2020

SEMESTER – I				
Paper Code	**Title of the Paper**	**University Examination**	**Internal Assessment**	**Maximum Marks**
PGDAWT-1	Fundamental of Information Technology & Operating System	75	25	100
PGDAWT -2	Internet and Web Technology	75	25	100
PGDAWT -3	ASP.Net	75	25	100
PGDAWT -4	Software Lab – I (Unix and HTML Lab)	40	60	100
PGDAWT -5	Software Lab – II (ASP.Net Lab)	40	60	100
SEMESTER – II				
PGDAWT -6	Office Automation	75	25	100
PGDAWT -7	Introduction to Java Script and Multimedia tools	75	25	100
PGDAWT -8	PHP and MySQL	75	25	100
PGDAWT -9	Software Lab – III (MS Office, Java Script, Multimedia Tools Lab)	40	60	100
PGDAWT -10	Software Lab – IV (PHP and MySQL Lab)	40	60	100

CONTINUOUS ASSESSMENT (THEORY PAPERS)

1.	Two tests will be conducted during the Semester. Both the tests will be considered for assessment.	:	60% of the marks allotted for Continuous Assessment
2.	Assignment/Quiz	:	20% of the marks allotted for Continuous Assessment
3.	Attendance	:	10% of the marks allotted for Continuous Assessment.
4.	Class Participation and behaviour	:	10% of the marks allotted for Continuous Assessment.

CONTINUOUS ASSESSMENT (PRACTICAL):

The break up of for the Continuous Assessment for the practical will be as under:

i. Two tests (60% of Total marks) 36 Marks
ii. Lab Assignments (30% of Total marks) 18 Marks
iii. Attendance/Class participation and behavior (10 % of Total marks) 6 Marks

PGDAWT -1 : FUNDAMENTALS OF INFORMATION TECHNOLOGY AND OPERATING SYSTEM

Maximum Marks : 75 Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

1 Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.
2 Use of non-programmable scientific calculator is allowed.

SECTION A

Introduction to Information Technology, Applications of Information Technology. Computer Fundamentals: Block diagram of Computer, Classification and Generation of Computer, Terms: Hardware, Software, Types of Software, Concept of Bit and Byte. Input Devices: Keyboard, Mouse, Scanner, OMR, MICR, Video Cameras. Output Devices: Monitors, CRT, TFT, Plasma Panel Display
Printers: DOT Matrix, Inkjet, Laser, Plotter, Multimedia Projector, CPU Organization, Instruction Set, Processor Speed.

SECTION B

Memories: RAM, ROM, Cache, Storage Devices: Floppy Disk, Hard Disk, Compact Disk, Computer Languages: Machine Language, Assembly Language, High Level Language, 4GLs, Translators-Interpreters, Compilers, Assemblers.
Number System : non-positional and positional number system, base conversion, fractional numbers, various operations on numbers.
Computer Code : computer words, characters data, weighted and non weighted code, BCD, EBCDIC, ASCII, grey code.

SECTION C

Introduction to Computer Software, Operating System, its need and Operating System services, Definition, Early system, Introduction to various types of Operating Systems. Windows: Installing Windows with setup, starting and quitting Windows, basic elements, desktop, starts menu, my computer, Recycle Bin, Windows accessories, System Tools, Control Panel, Sharing information between programs, GUI Vs CUI.

SECTION D

Unix : Introduction to UNIX,. Basics of files, directories and filenames, permissions, inodes, directory hierarchy. Comman file and directory Commands Metacharacters, pipes and filters : grep, sort and wc.

Text Books :

1. Computer Fundamentals-P.K.Sinha-BPB Publication

Suggested Reading:

1. Sukhmeen Kaur, Vikram Gupta, S. S. Bhatia and Navneet Kaur, "Fundamentals of Information Technology", Kalyani Publishers.
2. Fundamentals of Computers – V. Rajaraman - PHI
3. Windows for Dummies- Andy Rathbone-Pustak Mahel
4. The Unix Programming Environment : B.W. Kernigham and Rob Pike - PHI
5. Understanding UNIX-Stan Kelly-Bootle-BPB Publications

PGDAWT -2 : INTERNET & WEB TECHNOLOGY

Maximum Marks : 75
Minimum Pass Marks : 35%

Lectures to be Delivered : 40-50
Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

1 Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.
2 Use of non-programmable scientific calculator is allowed.

SECTION A

Definition of Internet, Internet organisation and committees, Growth of Internet, Internet Application, Portals, Introduction to WWW, Definition of DNS (Domain Name System).
Internet Protocols - Data Transmission Protocols, Client/Server Architecture & its Characteristics, FTP & its usage. Telnet Concepts, Remote Logging, Internet chatting - Voice chat, text chat.

SECTION B

Definition of Networks, Types of Networks(LAN,MAN,WAN),Network Topologies, Introduction to search engines (Mozila, Netscape, Opera) Email.OSI Reference model, TCP/IP Model Addressing in Internet Definition of Ethernet, Intranet, Telnet.

SECTION C

Introduction to HTML : Hyper Text Markup Language; HTML tags (The structure of an HTML program, Document Head, Document Body); Titles and Footers; Text Formatting (Paragraph Breaks, Line Breaks); Emphasizing Material in a Web Page (Heading Styles, Drawing Lines); Text Styles ; Text Effects; Lists :Types of Lists, Web Server; Web Client/Browser (Understanding how a Browser communicates with a Web Server)

SECTION D

Adding Graphics to HTML Documents: Using the Border attribute; Using the Width and Height Attribute; Using the Align Attribute; Using the ALT Attribute.
Tables : Introduction (Header, Data rows, The Caption Tag); Using the Width and Border Attribute; Using the Cellpadding Attribute; Using the Cellspacing Attribute; Using the BGCOLOR Attribute; Using the COLSPAN and ROWSPAN Attributes.
Linking Documents: Links, Images as Hyperlinks, Introduction to Frames.

Text Books :

1. HTML,DHTML, JAVA SCRIPT AND CGI- Evan Bayross-BPB Publications.

Suggested Readings:

1. Data and Computer Communication-William Stallings
2. Computer networks-Andrew S. Tanenbaum-PHI Publication
3. Computer network and internets-D.E. Comer- Pearson Education.
4. HTML-E.Stephen Mack and Janam Platt-BPB Publications
5. The Complete Reference-HTML-Powell Thomas-Tata Macgraw Hill

PGDAWT -3 : ASP.NET

Maximum Marks : 75 Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

1 Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.
2 Use of non-programmable scientific calculator is allowed.

SECTION A

Web Form Basics : Introduction, Declaring an ASP.NET Page, Using a Codebehind File with an ASP.NET Page, Dynamically Adding Literal Text or HTML to a Web Form, Submitting Data to Another Page Using ASP.NET, Creating a Scrolling Table within a Web Form, Selectively Hiding or Revealing Portions of a Web Form Programmatically, Displaying a Calendar in a Web Form, Validating User Form Input, Working With DropDown Lists, Creating Dependent DropDownList Control, Working with ListBoxes, Persisting Data on a Web Form Between Postbacks, Adding Client-Side Script to a Web Form
User Controls : Introduction, Declaring a User Control, Adding a User Control to a Web Form, Getting and Setting User Control Properties, Partial Page Output Caching, Dynamically Adding User Controls to a Web Form, Raising Events from a User Control.

SECTION B

ASP.NET Application Configuration : Introduction, Storing and Reading Custom Settings from the web.config File, Creating Custom Application Settings in the web.config File, Configuring Application Tracing, Configuring Application Debuging, Configuring Application Error Handling, Configuring Application Security, Configuring Sessions in your ASP.NET Application.
State Management : Introduction, Reading and Writing Values to the Application Object, Reading and Writing Values to the Session Object, Reading and Storing Data in Cookies, Reading and Storing Data in ViewState

SECTION C

Basic Data Operations with ADO.NET : Introduction, Connecting to SQL Server, Connecting to Oracle, Connecting to a Microsoft Access Database, Connecting to ODBC Datasource.
Working with Datasets : Creating a Datasets Consisting of Several Data tables, Filtering Contents of a Datasets, Sorting the Contents of a Datasets, Finding a Particular Row in a Datasets.
Renderring Data with ASP.NET Web Controls : Introduction, Renderring Data Directly on a Web Form, Data Binding to a Drop Downlists, Data Binding to a Repeater, Data Binding to a Data Lists, Data Binding to a Data Grid

SECTION D

Manipulating Strings : Introduction, Dissecting Strings, Various Operations on Strings, Working with a Numbers, Dates, and Times, Working with Files and Folders, Working with Collections

Text Books :

1. ASP.NET Developer's Cookbook- Steven A. Smith, Rob Howard, PEARSON Education, New Delhi

Suggested Reading:

1 Microsoft .NET framework 2.0 Windows based client development (Mathew A. stocker and Steven J.Stein, with Tony Northup PHI)

2 Building Web Solutions with ASP.NET and ADO.NET (Dino Esposuto)

3 Developing More Secure Microsoft ASP.NET 2.0 Application Dominick Baier.

4 Complete Reference of ASP. Net-Black Book.

PGDAWT - 4 SOFTWARE LAB – I (Unix and HTML Lab)

Maximum Marks : 100* **Lectures to be Delivered : 40-50**

Minimum Pass Marks : 35% **Time Allowed : 3 Hrs.**

This lab will consist of exercises based on Unix (covered under PGDAWT-1), and HTML (covered under PGDAWT-2.)

*The splitting of marks is as under

- Maximum Marks for Continuous Assessment : 60
- Maximum Marks for University Examination: 40

PGDAWT -5 : SOFTWARE LAB – II (ASP.NET Lab)

Maximum Marks : 100* Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

This lab will consist of exercises based on ASP.NET (covered under PGDAWT-3).

*The splitting of marks is as under

- Maximum Marks for Continuous Assessment : 60
- Maximum Marks for University Examination: 40

PGDAWT -6 : Office Automation

Maximum Marks : 75 Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

1 Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.
2 Use of non-programmable scientific calculator is allowed.

Section-A

Introduction to MS Word, MS Word Documents: Creating a File, Saving and File Formats, File views.

Font/Character Formatting: Styles and Character/Font Formatting, Character Formatting.

Paragraph Formatting: Styles and Paragraph Formatting, Structural Formatting, Paragraph Decoration

Styles: Styles Group, Styles Task Pane.

Page Setup and Sections: Page Borders, Header and Footer Layer, Header and Footer Navigation and Design, Adding Header and Footer Material

Tables and Graphics: Basics, Table, Table Layout and Design, Inserting Pictures from Files.

Mail Merge, Document Security.

Section-B

Introduction to MS Excel, Creating and Using Worksheets and Workbooks: Understanding workbooks and worksheets, Moving Around a Worksheet

Entering and Editing Worksheet Data: Exploring the types of Data, Entering Text and Values, Entering Dates and Times, Modifying Cell Contents, Applying Number Formatting.

Essential Worksheet and Cell Range Operations: Fundamentals of Excel Worksheets, Controlling the Worksheet View, Working with Rows and Columns, Understanding Cells and Ranges, Copying and Moving Ranges, Using Names to Work with Ranges, Adding Comments to Cells.

Formula and Functions: Understanding Formula Basics, Entering Formula, Editing Formula, Cell References in Formula, Using Formula in Tables, Correcting Common Formula Errors, Dates and times Handling, Date-Related Functions, Time-Related Functions, Working with Charts, Understanding Chart Types, Understanding Tables, Working with a Database or Table, Sorting and Filtering Data,Using Excel Data in Mail Merge.

Section –C

Introduction to MS PowerPoint, Starting and Exiting PowerPoint, Changing the View, Zooming In and Out, Enabling Optional Display Elements, Creating New Slides, Inserting Content from External Sources, Managing Slides, Using Content Placeholders, Creating Text Boxes Manually, Working with Text Boxes, Understanding layouts and Themes,

Changing a Slide's Layout, Applying a Theme, Changing Colors, Fonts, and Effects, Creating and Managing Custom Color and Font Themes, Changing the Background, Working with Preset Placeholders, Customizing and Creating Layouts, Managing Slide Masters, Managing Themes, Printing Slides.

Building Animation Effects, Transitions, and Support Materials: Understanding Animation and Transitions, Assigning Transitions to Slides, Using an Animation Preset.

MS Outlook: Organizing Messages, Contents, and Time with Outlook: Setting up E-mail Accounts, Modifying Account Settings, Composing and Sending Messages, Reading and Replying to Messages, Understanding the Inbox Display, Outlook Data Files, Working the Outlook Folders, Setting Options for an Individual E-Mail Message.

Section-D

Introduction to Database Development: Databases, Tables, Records and Fields.

Creating MS Access Tables: Creating a Database, Creating a New Table, Setting the Primary Key, Printing a Table Design, Saving the Completed Table, Manipulating Tables in a Database Window, Adding Records to a Database Table, Navigating Records in a Datasheet, Changing Values in a Datasheet.

Creating and Entering Data with Basic MS Access Forms: Adding Forms Using the Ribbon, Adding Controls, Selecting Controls, Manipulating Controls, Understanding Properties, Using Form View, Changing Values in a Form, Printing a Form.

Selecting Data with Queries: Types of Queries, Query Capabilities, Recordsets, Working with Fields, Changing the Sort Order, Displaying Only Selected Records, Printing a Query's Recordset, Saving a Query, Adding More Than One Table to a Query, Working with the Table/Query Pane, Adding Fields from More Than One Table, Understanding Multi-Table Query Limitations.

Presenting Data with Access Reports: Understanding report types, Distinguishing Between Reports and Forms, Understanding the process of creating a report, Printing a Report, Saving the Report.

Suggested Reading :

1. Office 2007 Bible- John Walkenbach, Herb Tyson, Faithe Wempen, Cary N. Prague, Michael R. Groh, Peter G. Aitken, Michael R. Irwin, Gavin Powell and Lisa A.Buci.
2. Working With MS-Office 2007, Tata McGraw-Hill Publishing, Content Development Group. Chennai.

PGDAWT -7 : INTRODUCTION TO JAVASCRIPT AND MULTIMEDIA TOOLS

Maximum Marks : 75 Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.

Section-A

Introduction to Javascript : JavaScript in Web Pages, The Advantages of JavaScript Writing JavaScript into HTML; Building Up JavaScript Syntax; Basic Programming Techniques ; Operators and Expressions in JavaScript; JavaScript Programming Constructs; Conditional Checking Functions in JavaScript, Dialog Boxes

Section-B

The JavaScript Document Object Model : Introduction (Instance, Hierarchy); The JavaScript Assisted Style Sheets DOM ; Understanding Objects in HTML (Properties of HTML objects, Methods of HTML objects); Browser Objects ,Handling Events Using JavaScript

Forms Used by a Web Site : The Form Object; The Form Object's Methods (The Text Element, The Password Element, The Button Element, The Submit (Button) Element, The Checkbox Element, The Radio Element, The TextArea Element, The Select and Option Element, The Multi Choice Select Lists Element); Other Built-In Objects in JavaScript (The String Object, The Math Object, The Date Object); User Defined

Section –C

Introduction to Multimedia: Different forms of Multimedia--text, Graphics, images, audio and video Applications of Multimedia. Flash Basics : Panels, Tools panel, Time line, Properties Panel, Stage, Current Layer, Current Frame, Current Symbol. File types: source files, exported files,

Section-D

Introduction to Photoshop: The tool box and Menu Bar Options. Color modes and color models: Color Models, the modes and Models of Color, Color bit depth. Adjusting Color: Making other Adjustments, Adjustments layers, understanding Channels. Paint Brushes and Art Tools: The Brushes menu, The Painting Tools, Digital Painting: foreground and background colors. Selecting colors, Blending modes. Moving Paint, Smudges focus tools, the toning tools. Layers: Using the layers palette, working with multiple layers, using masks, applying masks, using quick mask, layer mask, paths creating paths, editing paths, using paths.

Suggested Reading :

1. Multimedia Communications: Fred Halsall- Pearson Education 2001.
2. Adobe Flash CS3 Professional- Phillip Kerman-Pearsons Education
3. Adobe Photoshop CS2 in 24 hours-Carla Rose, Kate Binder.
4. The Complete Reference: Photoshop Elements 2-Ken Milburn and Gene Hirsh
5. Sams Teach Yourself Javascript in 24 hours
6. The Complete Reference,Javascript, second edition

PGDAWT -8 : PHP AND MYSQL

Maximum Marks : 75 Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

INSTRUCTIONS FOR PAPER-SETTERS

The question paper will consist of five sections A, B, C, D and E. Sections A, B, C and D will have two questions from the respective sections of the syllabus and will carry 20% marks each. Section E will have 5-10 short answer type questions which will cover the entire syllabus uniformly and will carry 20% marks in all.

INSTRUCTIONS FOR CANDIDATES

1 Candidates are required to attempt one question each from section A, B, C and D of the question paper and the entire section E.

2 Use of non-programmable scientific calculator is allowed.

SECTION A

Installing and Configuring : Current and Future Versions of MySQl and PHP, How to Get MySQL, Installing MySQL on Windows, Trouble Shooting your Installation, Basic Security Guidelines, Building PHP on Windows with Apache, Windows, php.ini.Basics,

The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants.Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output

SECTION B

Working with Functions: What is function?, Calling functions, Defining Functions, Returning thevalues from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments.Working with Arrays: What are Arrays, Creating Arrays, Some Array-Related Functions.

Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

Working with Forms: Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads.

SECTION C

Understanding the database design process: The Importance of Good Database Design, Types ofTable Relationships, Understanding Normalization.

Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table CreationSyntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries,Selecting from Multiple Tables, Using the UPDATE command to modify records, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL.

SECTION D

Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data.

Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

Suggested Readings:

- Sams Teach Yourself PHP in 24 Hours, Third Edition
- Wrox, Beginning PHP, Apache, MySQL Web Development
- Wrox, Beginning PHP

PGDAWT -9 : SOFTWARE LAB – III (MS Office, Java Script, Multimedia Tools Lab)

Maximum Marks : 100* Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

This lab will mainly comprise of exercises on the basis of the theory papers: PGDAWT-6 (MS Office) and PGDAWT-7 (JavaScript and Multimedia tools).

*The splitting of marks is as under

- Maximum Marks for Continuous Assessment : 60
- Maximum Marks for University Examination: 40

PGDAWT -10 : SOFTWARE LAB – IV (PHP and MySQL Lab)

Maximum Marks : 100* Lectures to be Delivered : 40-50

Minimum Pass Marks : 35% Time Allowed : 3 Hrs.

This course will mainly comprise of exercises on the basis of the theory paper: PHP and MySQL (covered under PGDAWT-8).

*The splitting of marks is as under

- Maximum Marks for Continuous Assessment : 60
- Maximum Marks for University Examination: 40