PUNJABI UNIVERSITY, PATIALA

OUTLINES OF TESTS, SYLLABI AND COURSES OF READINGS

FOR

POST GRADUATE DIPLOMA IN INTERNET AND WEB DESIGNING

(Semester I & II)

Sessions 2018-19 & 2019-20

PUNJABI UNIVERSITY,
PATIALA 147002

SYLLABUS
OUTLINES OF PAPERS AND TESTS
POST GRADUATE DIPLOMA IN INTERNET AND WEB DESIGNING
(Sessions 2018-19 & 2019-20)

SEMESTER I				
Paper Code	**Title of the Paper**	**University Examination**	**Internal Assessment**	**Maximum Marks**
PGDIW-1	Fundamentals of Information Technology & Operating System	75	25	100
PGDIW-2	Computer Network and Web Technology	75	25	100
PGDIW-3	Office Tools	75	25	100
PGDIW-4	Software Lab – I (Unix and Scripting Languages Lab)	40	60	100
PGDIW-5	Software Lab – II (MS Office Lab)	40	60	100
		305	195	500
SEMESTER II				
Paper Code	**Title of the Paper**	**University Examination**	**Internal Assessment**	**Maximum Marks**
PGDIW-6	Multimedia Tools	75	25	100
PGDIW-7	ASP.NET	75	25	100
PGDIW-8	Communication Skills and Personality Development	75	25	100
PGDIW-9	Software Lab – III (Flash and Photoshop Lab)	40	60	100
PGDIW-10	Software Lab – IV (ASP.NET Lab)	40	60	100
		305	195	500

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/Quizes	:	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 behaviour (10 % of Total marks) 6 Marks

PGDIW-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, Basic of files, directories and filenames, permissions, inodes, directory hierarchy.
Comman file and directory Commands
Metachracters, pipes and filters : grep, sort and wc

Text Books :

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

SUGGESTED READING:

1. Fundamentals of Computers – V. Rajaraman - PHI
2. Windows for Dummies- Andy Rathbone-Pustak Mahel
3. The Unix Programming Environment : B.W. Kernigham and Rob Pike - PHI
4. Understanding UNIX-Stan Kelly-Bootle-BPB Publications

PGDIW-2 : COMPUTER NETWORK AND WEB TECHNOLOGY

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 Computer Networks:Internet, Intranet,Extranet and Virtual Private Networks. Future of Internet Technologies. Types of Networks:LAN,WAN,MAN. Networks Topologies. Structure of Computer Networks: Point to Point, Broadcasting. Connection less and Connection Oriented services. Reference Models: OSI and TCP/IP.
IEEE standards: 802.3,802.4,802.5,802.11. Internet Applications: DNS,E-mail, WWW, Telnet, FTP.

SECTION B

Introduction to Internetworking-Concepts, Hubs and Switches, Repeaters, Routers, Bridges and Gateways,
Introduction to Protocols:IP Protocol,IP Addresses,subnets,Internet control protocol. Introduction to ATM.
Communication Protocol: Carrier Sense On Multi-Access Networks (CSMA), Collision Detection And Backoff With CSMA/CD,
Introduction to Mobile Technology (FDM,TDM,CDMA). Introduction to Satellite Communication (LEO, GEO, TDM)
Introduction to Network Security : Cryptography, Public Key Encryption, Digital Signature.

SECTION C

Introduction to HTML, HTML and the World Wide Web, HTML elements, basic structure elements of HTML, creating HTML pages, HTML tags, colour and fonts, formatting the body section, creating links. Adding graphics with image elements, using image as links, image maps, image files. Adding sound and Video formats, other multimedia formats, adding multimedia to web pages.
Presenting information in tables, Understanding the use of frames, frame set documents, targeted links, non frame elements, inline frames.
Building interactivity with forms, form elements and attributes, using form control elements, processing forms.

SECTION D

HTML extension, Netscape's non-standard extensions to HTML, Microsoft's non-standard extensions to HTML. Style sheets, CSSI's advantages and limitations, HTML and CSSI integration, working of CSSI, CSSI's properties.
Programming with applet's, Active script and CGI: Examples of Java Script and CGI scripts, CGI programs and Script, Dynamic HTML, Microsoft's DHTML and Netscape's DHTML, Designing Websites, Logic design, Templates, Compatible design.

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

PGDIW-3 : OFFICE 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

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 Formulas, Editing Formulas, Cell References in Formulas, Using Formula in Tables, Correcting Common Formula Errors, Dates and times Handling, Date-Related Functions, Time-Related Functions, What is Chart, Working with Charts, Understanding Chart Types, Understanding Tables, Working with a Database or Table, Sorting and Filtering Data, Using Excel Data in a 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 2000, Tata McGraw-Hill Publishing, Content Development Group. Chennai.

PGDIW-4 : SOFTWARE LAB – I (Unix and Scripting Languages Lab)

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

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

The Lab will consist of exercises based on Unix (covered under paper PGDIW-1), HTML, CSS and DHTML (covered under PGDIW-2).

* Maximum Marks for continuous assessment	:	60
Maximum Marks for University examination	:	40

PGDIW-5 : SOFTWARE LAB – II (MS Office 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 MS Word, MS Excel, MS PowerPoint and MS Access covered under paper PGDIW-3.

* Maximum Marks for continuous assessment	:	60
Maximum Marks for University examination	:	40

PGDIW-6 : 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

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 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,

Drawing and Painting Art in Flash : Tools, Viewing and modification tools, creation tools, selecting and transforming objection, Selection tools, Transforming scale, rotation, Envelope and Distortion. Using snap to objects to connect shapes.

Importing Graphics into Flash : Vector Graphics Vs Raster Graphics, Importing vector Graphics and Raster Graphics

Using library : Creation and use of symbol, Using the Color Styles.

SECTION-B

Controlling Colors : Blends and filters, Properties, Using Colors, Creating Solid and Gradient Swatches, Using and Transforming the Gradients. Applied layout techniques : Static text layout, Embedding fonts for dynamic text.

Animating in Flash : Elements of Animation : Frames and Frame rate, Frame rates of different types of animation, Key frames and blank key frames, Tweening, Creating a motion tweening, Shape tweening to morph, Adding sounds in animation, Controlling quality and file size,
Layers in animation : Layer properties for visual effects.

Nesting Animations in Movie Clip and Graphic Symbol: Creating and using Movie clips.
Adding Interactivity and Video: Basic Action script. Application of Action Script. Listening for Events: Understanding Event handling.

SECTION C

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.

SECTION-D

Filters: Sharpen filters, Blur filters, fading filters, Artistic filters, Brush strokes, sketch filters, distort filters, Pixelate filters, Stylize filters, Combing filters. Adding type to Pictures: The type tools, setting type, creating drop shadows, cutting and filling type, adding glows, creating Bevel and Emboss effects, wrapping text, setting type on a paths, checking your spellings, glows, lighting effects, reflections, extracting selections, Notepad ,contact sheets and pictures packages.

SUGGESTED READINGS :

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

PGDIW-7 : 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 of Strings, Working with a Numbers, Dates, and Times, Working with a 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.

PGDIW-8 COMMUNICATION SKILLS AND PERSONALITY DEVELOPMENT

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

Reading: Unseen passages prose/ verse with a variety of comprehension questions.

SECTION B

Writing: Short composition of not more than 50 words each eg. Notice, message, postcard writing. Composition based on a written stimulus such as advertisement, notice, newspapers cutting, diary extract, letter or other forms of correspondence composition based on visual stimulus such as a diagram, picture, graph, map, cartoon or flow chart.

SECTION C

Grammar: Determines and Personal Pronouns, Tenses, Reported Speech, Voice, Editing (errors), Editing (Omission), clove (gap filling), News Headlines.

SECTION D

Personality and its Development :- Personality Traits, Factors, Shaping a Personality.
Personality skills : Self Management skills, Independent learning skills, Goal skills, background skills.
Time Management : Meaning and Techniques, Time Budgeting, Value of time, Barriers to time management.
Attitude Formation : Temperament, Inhibition, Positive Outlook.

SUGGESTED READINGS:

1 Oxford Practice Grammar-John Eastwood.
2 Living with Honour- Shiv Khera.
3 Be the Best- Joginder Singh.
4 The Written Word – Vandana R. Singh
5 Personality Development – John Aurther
6 Time Management – M.R. Pai

PGDIW-9 : SOFTWARE LAB-III (Flash and Photoshop 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 Flash and Photoshop (covered under paper PGDIW- 6).

* Maximum Marks for continuous assessment	:	60
Maximum Marks for University examination	:	40

PGDIW-10 : SOFTWARE LAB – IV (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 paper PGDIW-7).

* Maximum Marks for continuous assessment	:	60
Maximum Marks for University examination	:	40