

**Post Graduate Diploma in Computer Applications (PGDCA) SEMESTER – I**

S. No.	Paper Numerical Unique	Class & Papers	Paper Name/Subject	Theory paper		Practical Exams		Internal Evaluation		Total
				Max.	Min.	Max.	Min.	Max.	Min.	
1.	7617	1PGDCA1	Fundamentals of Computers & Information Technology	80	32	-	-	20	08	100
2.	7618	1PGDCA2	PC Packages (Word, Excel, Powerpoint)	50	20	30	12	20	08	100
<b>Elective-I</b>										
3.	7619	1PGDCA3 (A)	Database Using MySQL	50	20	30	12	20	08	100
4.	7620	1PGDCA3 (B)	Database Using MS-Access	50	20	30	12	20	08	100
<b>Elective-II</b>										
5.	7621	1PGDCA4 (A)	Fundamentals of Multimedia	50	20	30	12	20	08	100
6.	7622	1PGDCA4 (B)	Programming with VB .Net	50	20	30	12	20	08	100

**Post Graduate Diploma in Computer Applications (PGDCA) SEMESTER – II**

S. No.	Paper Numerical Unique	Class & Papers	Paper Name/Subject	Theory paper		Practical Exams		Internal Evaluation		Total
				Max.	Min.	Max.	Min.	Max.	Min.	
1.	7715	2PGDCA1	IT Trends & Technologies	80	32	-	-	20	08	100
2.	7716	2PGDCA2	Internet and Web Designing	50	20	30	12	20	08	100
<b>Elective-I</b>										
3.	7717	2PGDCA3 (A)	DTP with Page Maker & Photoshop	50	20	30	12	20	08	100
4.	7718	2PGDCA3 (B)	Financial Accounting with Tally	50	20	30	12	20	08	100
<b>Elective-II</b>										
5.	7719	2PGDCA4 (A)	Multimedia with Corel Draw, Premier & Sound Forge	50	20	30	12	20	08	100
6.	7720	2PGDCA4 (B)	Programming with ASP .Net	50	20	30	12	20	08	100

**SCHEME FOR  
POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS (PGDCA)**

**SEMESTER -I**

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
1PGDCA1	Fundamentals of Computers & Information Technology	4		80		20	100	
1PGDCA2	PC Packages (Word, Excel, PowerPoint)	3	1	50	30	20	100	
1PGDCA3(A) <b>OR</b>	<b>Elective-I</b> Database Using MySQL	3	1	50	30	20	100	
1PGDCA3(B)	Database Using MS-Access	3	1	50	30	20	100	
1PGDCA4(A) <b>OR</b>	<b>Elective-II</b> Fundamentals of Multimedia	3	1	50	30	20	100	
1PGDCA4(B)	Programming with VB.Net	3	1	50	30	20	100	
<b>Total</b>								<b>400</b>

(L - Lecture, P-Practical)

**SEMESTER -II**

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
2PGDCA1	IT Trends & Technologies	4		80		20	100	
2PGDCA2	Internet and Web Designing	3	1	50	30	20	100	
2PGDCA3(A) <b>OR</b>	<b>Elective III</b> DTP With Page Maker & Photoshop	3	1	50	30	20	100	
2PGDCA3(B)	Financial Accounting with Tally	3	1	50	30	20	100	
2PGDCA4(A) <b>OR</b>	<b>Elective-IV</b> Multimedia With Corel Draw, Premier & Sound Forge	3	1	50	30	20	100	
2PGDCA4(B)	Programming with ASP.Net	3	1	50	30	20	100	
<b>Total</b>								<b>400</b>

**General Instructions:**

1. For passing the subject examination minimum 40% marks must be separately scored in Theory Paper, Practical Exams and Internal Evaluation in the subject.
2. For passing the semester, minimum aggregate marks must be 45% in the semester.

*M. Maheshwari*  
Principal  
PGDCA

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Prof. C. P. Agrawal

## SEMESTER-II

### 2PGDCA1 – IT TRENDS & TECHNOLOGIES

#### UNIT-I

E-governance, e-democracy, Government efforts to encourage citizen participation, PPP model, E-governance websites & services, MPONLINE services, UIDI & Aadhar, E-governance mobile apps like UMANG, Digital Locker, Digital Library.

Introduction to cyber crime, types of attacks like spyware, malware, spam mail, logic bombs, denial of service, types of cyber crime like email fraud, phishing, spoofing, hacking, identity theft.

#### UNIT-II

E-Commerce- introductions, concepts, Advantages and Disadvantages, technology in E- Commerce, Benefits and impact of e-commerce

Electronic Payment Systems: Introduction, Types of Electronic Payment Systems, RTGS, IMPS, NEFT, Payment gateway, debit & credit card, internet banking, mobile wallet, UPI, BHIM, PAYTM app, online shopping, online marketing

#### UNIT-III

Introduction to wireless communication, Blue tooth, WiFi, WiMax, LiFi, Mobile technology, 2G, 3G, 4G, 5G services, IMEI, SIM, IP Telephony, Soft phone, Voice mail, Ad-hoc & sensor networks, GIS, ISP, Mobile Computing, Cellular System Cell, Mobile Switching office, Hands off, Base Station.

#### UNIT-IV

Artificial Intelligence and Expert system- Concepts of AI & Expert Systems, Merits and Demerits of Expert system, Application of Expert system and AI

Cloud computing- Introduction, types, application, services, Google play store, Apple store,

IOT- Introduction, Application & use

Big data- Introduction, Application & use

#### UNIT-V

Introduction to MIS, System Development Life Cycle, Various phases of system development, Considerations for system planning, Initial Investigation, Determining Users Requirements and Analysis, Fact Finding Process and Techniques, Data Analysis, data Dictionary, decision table, decision tree & form design process.

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#### Reference Books:

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- Fundamentals Of Information Technology By Alex Leon & Mleon, Vikas Publications.

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- Frontiers Of Electronic Commerce, By- Kalakota, Ravi; Stone, Tom.
- E-Commerce An Indian Perspective (Second Edition) By Pt Joseph, S.J. Prentice-Hall Of India.
- Recent Magazines of Computers And Communication.
- System Analysis & Design by V K Jam, Dreamtech Press.
- Modern System Analysis & Design by A Hoffer, F George, S Valaciah, Low Priced Edn. Pearson Education.
- Information Technology & Computer Applications by V K. Kapoor, Sultan Chand & Sons, New Delhi.

MK Meleshwari

विभागाध्यक्ष  
कम्प्यूटर अनुप्रयोग विभाग

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## SEMESTER-II

### 2PGDCA2 – INTERNET AND WEB DESIGNING

#### UNIT-I

Introduction to Internet - Internet Evolution & Concept, Internet Vs Intranet, Growth of Internet, Internet Service Provider (ISP) & its Function, Connectivity- Dialup, Leased line, VSAT , URLs, Portals, Internet Services, Applications. E-MAIL- Basics of Sending & Receiving, Free Email services, Internet chatting - Voice chat, Text chat, World Wide Web (www)- History, Working, Web Browsers & its functions, Concept of Search Engines, Searching the Web, HTTP, URLs, Web Servers, Web Protocols, Networks layers & TCP/IP protocols, The Advantages and Disadvantages of Internet and World Wide Web

#### UNIT-II

HTML- Concepts of Hypertext, Versions of HTML, Elements of HTML, Syntax, Tags & Attributes, Head & Body Sections, Building, HTML Documents. Inserting Texts, Images, Hyperlinks, Backgrounds And Color Controls, Different HTML Tags, Table Layout and Presentation, Creating Lists, Use of Font Size & Attributes, List Types and Its Tags, Use of Frames and Forms in Web Pages, Creating Frameset, Opening pages into frames, Design Forms Contro

#### UNIT-III

Cascading Style Sheet (CSS) – Introduction, creating style , using inline and external CSS, Creating Divs with ID style, creating Tag & Class style using font family, size and colors, creating borders, Navigation links, creating effects with CSS, JavaScript Overview, syntax & conventions, Variables, Expressions, Branching & Looping statements, Functions, Arrays Objects, Events & Document Object Model - onClick, onMouseOver, on Submit, on Focus, on Change, onBlur, onLoad, onUnload, Alerts, Prompts & Confirms

#### UNIT-IV

Designing Websites with **Expression Web**– Introduction to WYSIWG HTML editor, advantages of using HTML editors, Creating a new site, Creating a new Page, Inserting and formatting text, Creating & Inserting Images, Adjusting Transparency settings, Adding Images with alternative Text, Aligning images, creating Email Link, Linking to other websites, Testing and targeting Links, Organizing files & folders, Designing Accessible Tables, styling a table, Editing table layouts, Adding style to a table using CSS

#### UNIT-V

**Word Press**- What is Word Press, Installation, Login, overview of admin panel, user profile, Word Press Themes, Themes depository, Create & add a new logo, Set up a static home page, Create Posts, Delete pages, Create Menu, Add a post, Delete a post, Add Widgets, Upload images, Add Images To a post, Insert and Format Text, Add a Hyperlink to an image, Add a Hyperlink to some text, Protocols- meaning, different web protocols- FTP, DNS, TCP, UDP, HTTP, IP Telnet Concept, FTP Commands - viewing Files and directories, Transfer and rename files, FTP with Filezilla & CuteFTP, Web Hosting – Concept, Introduction to Domain Name & DNS, procedure to register a Domain Name, Procedure for web hosting, Space on Host Server for Website.

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**Reference Books:**

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- Level Module- M 1.2 - Internet & Web Page Designing By V.K.Jain – Bpb Publications.
- E-Commerce An Indian Perspective (Second Edition) - By P. T. Joseph, S.J. Esentice-Hall Of India
- Internet For Everyone - Alexis Leon And Mathews Leon, Vikas Publishing House Pvt. Ltd., New Delhi
- WordPress Made Super Simple - How Anyone Can Build A Professional Looking Website, by Jack Davies and Sarah Wiley
- Internet For Dummies - Pustak Mahal, New Delhi
- A Beginners Guide To Html Available At:[Http://Www.Ncsa.Uiuc.Edu /General/Internet /Wwwlhtmlprimerall. Html](http://www.ncsa.uiuc.edu/General/Internet/Wwwlhtmlprimerall.html)
- Introduction To Javascript Available At - [Www. Mcu. Ac. In/Javascriptguide.Pdf](http://www.mcu.ac.in/javascriptguide.pdf)
- How To Create A Website Using Wordpress: The Beginner's Blueprint for Building a Professional Website in 3 Easy Steps Kindle eBook , by Brian Patrick
- Wordpress for Beginners 2017: A Visual Step-by-Step Guide to Mastering Wordpress Kindle eBook by Dr. Andy Williams

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**Practical Questions:**

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- Q1. How to link an image to another page in HTML,
- Q2. How to create a link that opens a new web page window or tab.
- Q3. How to create links to sections on the same page in HTML
- Q4. Creating images as links with no borders.
- Q5. Creating a link without an underline in HTML.
- Q6. Changing link color when moving mouse over link in HTML.
- Q7. Creating a link to play a sound file in HTML
- Q8. How to create a link that goes to top of a web page.
- Q9. Creating HTML push button link and creating an HTML back button.
- Q10. How to create a link to automatically run .exe file once downloaded.
- Q11. Creating a mail link on a web page
- Q12. Explain how you can make your site live in Expression Web and word press?
- Q13. How you can perform validation in Expression Web and word press?
- Q14. How you can create a mailto form in Expression Web and word press?

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- Q15. How you can add an image to your web page in Expression Web and word press?
- Q16. Design a website for your university using Expression Web and word press?
- Q17. Design a website for university e-library using Expression Web and word press?
- Q18. Design a website for MP Tourism and booking using Expression Web and word press?
- Q19. Design a website for online exam using Expression Web and word press?
- Q20. Design a website for E-ticketing system using Expression Web and word press?

M. K. Maheshwari  
विभागाध्यक्ष  
कंप्यूटर अनुप्रयोग विभाग

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## SEMESTER-II

### 2PGDCA3(B) – FINANCIAL ACCOUNTING WITH TALLY

#### (ELECTIVE-III)

##### UNIT-I

Basic Concepts of Accounting, Financial Statements, Financial Statement Analysis, Cost Centre, Basic concepts of Inventory, Tally Configuration & INI setup, Data Directory & Folders configuration, Single & Multiple User, Tally Screen Components, Mouse/Keyboard Conventions & Key, Combinations, Switching between screen areas, Quitting Tally. Maintaining Company Data, Basic Company Details - Create/Alter/Select/Load/Close a Company, Chart of Accounts, Company Features, and Configuration.

##### UNIT-II

Create, Alter & Display Groups and Ledgers, All accounting voucher types, Accounting Voucher transactions, Account Invoice transactions, Excise Invoice, Export Invoice, Transactions using Bill-wise details.

Bank Reconciliation, Interest calculations using simple & advance parameters, Interest calculations on outstanding balances & on invoices, Use of voucher class, adjustment of interest, Creation of voucher class, Invoice entry in a class situation.

Create, Alter & Delete Budgets for groups, ledgers & cost centre, Defining credit limit & credit period, Display Budgets & variances, Create, Alter & Delete a scenario. Journal Transactions, payment voucher, Go down summary

##### UNIT-III

Reports like balance sheet, Profit & Loss account, Ratio analysis Trial Balance. Accounts books like cash/bank book, All Ledgers Group summary & vouchers, Sales, purchase & journal registers.

Cost centre & category summary, Cost centre breakup ledger & group breakup, outstanding receivables & payables, interest receivable & payable, Statistics, Cash & Fund flow, Day book List of Accounts, Reversing journals, optional vouchers, post-dated vouchers.

##### UNIT-IV

Create, Alter & Display Stock Groups and Stock Items, All inventory voucher types and transactions Inventory details in accounting vouchers.

Reports like Stock summary, Inventory books like Stock item, Group summary, Stock transfers, Physical stock register, Movement analysis, Stock group & item analysis,

*M. Maheshwari*  
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stock category analysis Ageing analysis, Sales order & Purchase order book, Statement of inventory related to Go downs, categories, stock query, Reorder status, Purchase & Sales order summary, Purchase & Sales bill pending, Exception reports like negative stock & ledger, overdue receivables & payables, memorandum vouchers, optional vouchers, post-dated vouchers, reversing journal

#### UNIT-V

Cheque Printing, Common printing options, Different printing formats, Multi-Account printing, Dynamic- Report specific options, Creating Group Company, Use of Tally vault, Using Security control & defining different security levels, Use of Tally Audit

Back-up & Restore, Splitting company data, Export & import of Data, ODBC compliance, use of E-mail, Internet publishing, Upload, web browser & online help, Re-write data.

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#### Reference Books:

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- Nadhani, K.K, Accounting with Tally, BPB Publications, New Delhi
- Kogent Learning Solution, Tally ERP 9 in simple steps (Hindi), Dreamtech Press, New Delhi
- Goyal, Hemant Kumar, कम्प्यूटर द्वारा एकाउंटिंग, Radha Pocket Books
- Goyal, Hemant Kumar Sharma, Rajkumar, ए 2 जेड कम्प्यूटर द्वारा एकाउंटस, Ravi Pocket Books, Meerut
- N. Satyapal, Using Tally, Khanna Books Publishers, New Delhi
- Nadhani, Ashok K, Nadhani, Kisor K, Implementing Tally 9, BPB Publications, New Delhi

M. Maheshwari  
विभागाध्यक्ष  
कम्प्यूटर अनुप्रयोग विभाग

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## SEMESTER-II

### 2PGDCA4(B) – PROGRAMMING WITH ASP.NET

#### (ELECTIVE-IV)

##### UNIT-I

Concepts of Hypertext & HTML, Elements of HTML syntax, Head & Body Sections, Building HTML documents, Inserting texts, Images, Hyperlinks, Backgrounds and Color controls, HTML tags, Table layout and presentation, Use of font size & Attributes. List types and its tags, Use of Frames and Forms in web pages

##### UNIT-II

Overview of Dynamic Web page, introduction & features of ASP.NET, Understanding ASP.NET Controls, Applications, Web servers, IIS, Web forms, web form controls, server controls, client controls. Adding controls to a web form, Buttons, Text Box, Labels, Checkbox, Radio Buttons, List Box.

##### UNIT-III

Running a web Application, creating a multiform web project, Form Validation: Client side validation, server Side validation, Validation Controls: Required Field Comparison Range. Calendar control, Ad rotator Control, Internet Explorer Control, Accessing Data using Data Adapters and Datasets

##### UNIT-IV

Database programming for websites, Creating Connection, Accessing Data using Data Adapters and Datasets , using Command & Data Reader, data bind Controls, data grid. Add, delete, move & update records to dataset. Projects in ASP.NET using database

##### UNIT-V

Introduction to XML in .NET, XML basics, attributes, fundamental XML classes, Document, textwriter, textreader, XML validations, XML in ADO.NET, The XML Data Document, Introduction to Web services, State management- View state, Session state, Application state SOAP, web service description language.

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#### **Reference Books (Based on Visual Studio 2010 or Above):**

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- The Complete Reference ASP.NET by Mathew Macdonald, TMH.
- Professional ASP.NET- Wrox publication.
- Active Server Pages 2.0 (Unleashed) by Stephen Walther: Techmedia.
- ASP 3 Programming Bible by Eric A. Smith: IDG Books.

M. Maheshwari  
विभागाध्यक्ष  
कम्प्यूटर अनुप्रयोग विभाग

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**Practical Questions:**

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- Q. Write a Program to illustrate comment, H1.... H6 and div tag.
- Q. Write a Program to illustrate text formatting tags, ordered list tag and unordered list tag.
- Q. Write a Program to illustrate Image tag and Hyperlink tag.
- Q. Create a webpage showing the use of buttons, textbox, labels and checkbox.
- Q. Create a webpage having a registration form for a company.
- Q. Create simple application using web controls.
- Q. Write a Program to illustrate Validation controls.
- Q. Write a Program to generate the Login control.
- Q. Write a Program to perform Asp.Net state.
- Q. Write a Program to display holiday in calendar.
- Q. Write a Program to bind data in a multiline textbox by querying in another textbox.
- Q. Write a Program to create an own table and bind data using data grid.

M. Maheshwari

विभागाध्यक्ष  
कंप्यूटर अनुप्रयोग विभाग

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