

BIJU PATTNAIK COMPUTER CENTER
SYLLABUS OF PGDCA
BIJUPATTNAIK COMPUTER CENTER

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2022-2023

Theory marks	470	PRACTICAL	250
INTERNAL	130	PROJECT	100
FULL marks	1000	PASS MARK	60% Theory, 40% Practical
Paper	course	Theory	Viva/Assignment
1	Fundamental of computer & OS	40	10
2	Office Automation (Word, Excel, PPT)	80	20
3	Computer Network, Internet technology & Security	80	20
4	Programming in C++	80	20
5	Database Management System (DBMS)	40	10
6	Multimedia	40	10
7	Accounting Tally with GST	40	10
8	Web Design (Html, Css, Java Script, Xml)	80	20
9	Android using Python/Java	40	10
10	Pc application LAB	40	10
11	TALLY ERP LAB	40	10
12	C++ LAB	40	10
13	MULTIMIDIA LAB	40	10
14	SQL & ACESS LAB	40	10
15	PYTHON LAB / JAVA LAB	40	10
16	PROJECTS	80	20

COMPUTER FUNDAMENTL

UNIT-1

Computer history, generation, characteristic, type of computer, computer component, computer organization, input & output, CPU, storage unit, peripherals.

UNIT-2

Data, types of data, information's, number system, ALU, Boolean algebra, logic gates.

UNIT-3

Memory, Ram, Rom, Motherboard, port, software (system, application).

UNIT- 4

Language, machine level, assembly, high level, operating system, CUI, GUI, linux, unix, windows XP, Windows 98, vista, win 7(overview), PC .

UNIT-5

Hardwares, Drivers, networking, client, server, microprocessors, DOS.

OPERATING SYSTEM

UNIT-1

Operating system concept, OS as resource manager, processor management, single user, multi user, device management, virtual storage information management, command interpreter and command of DOS, multimedia keyboard functional commands, booting and advance booting commands, Bios, BIP sounds.

UNIT-2

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User interface, CUI, Linux operating system, GUI-window, definition of GUI, getting started, using mouse, windows components, windows icons mouse and pop ups, task bar, folder and drive management, control menu, menu bar, border, title bar, maximize minimize, scroll bar, command button, optional button, check box, list box.

UNIT-3

Windows 7, my computer, libraries, searching for files, desktop management, gazettes, sorting and grouping view with arrangement, securities of drives, device manager, help and supports, error messages, shortcuts, pin up, my network place, control panel, shortcut keys.

UNIT-4

Utility programs, accessing peripherals, driver installation, device manager, system protections, error messages, printer, scanner management, pen drive, memory card, data manipulations, formatting, data recovery, application software installation, blocking and removing unwanted software. Virus, malwares, antivirus, management of system registry, defragments, cleans temporary files. System restores, operating system utilization shortcut, maintaining power figuring, shortcut creation, program shortcut, task manager, help and support.

OFFICE AUTOMATION

UNIT-1

Accessories, calculator, math input panel, notepad, paint, promote desktop connection, run, snipping tools, sound recorder, sticky notes, typing procedure, key drill, Typing Master pro, Multi language input. Akruiti, Shreelipi, Math types & Dictionary

UNIT-1 (WORD)

Getting Started with Word ,Starting Word, Opening a saved Word document, make save and save as document, Previewing a document Creating a folder,

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Printing a document, restricted and unrestricted document, mark as final, overview of send e-mail, Closing a document and exiting Word, Writing a Document, page setup, Navigate through a document, Scroll through text, Add font style and size, change style, Insert and delete text in a document, Copy, cut and paste, Use the clipboard, set paragraph, Clear formatting. Page break, cover pages, insert and draw table, insert and reposition a picture, Insert an object from an application, symbol & equation. page setup, Adjust margin, orientation, column setting, Themes, font color, set page background, border and shading, adjust paragraph setting, line numbers, watermark, line spacing, position, Set and change indentations, arrange text, text wrapping, Alignment text, grouping, rotation. Reference of document, table of content, add text of contents, sort table data, creating nested table, adding footnotes, arrange footnotes, insert endnote, insert citation, biography, caption, cross reference, index, table of authorities. Mailing of word document, create envelope and level, get start mail merge, write and insert field, add address block, add greeting line, insert merge field, add rules, preview result, finish mailing. Review on word document, proofing, check spelling and grammar, set language, word count, add comments, delete comments, tracking. Document view, full screen view, web layout view, other view, show ruler and guideline, message bar, zoom, add a new window, arrange window, split window, switch window, macros, securities, Control, xml, templets, create PDF.

UNIT-2 (POWERPOINT)

Power point views, entering the text, moving the text, changing the color, working with slide (recording slides, duplicating slides, deleting slides, adding animated cartoon to a slide, adding slide transitions, a notating slides during a slide show, annotation effect rehearsing a presentation), adding text transitions, making slide shows, hiding a slide.

Customizing PowerPoint, application setting, custom themes, customizing PowerPoint, tab setting, customizing the slide colour, working with template (slide master, title master, master & design template, modify slides based on the slide master creating template).

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Presentation on the web, the web tool bar publishing a presentation on the web, setting up hyperlink, using multimedia, including movie clips in presentation, including sound in a presentation, additional location of (clip art, picture, sound, video), option for move and clips, object linking and embedding, editing linked and embedding objects, transferring text into p.p from word, embedding MS p.p in a side, insert slides from other presentation, saving file for use in another application.

UNIT-3 (EXCEL)

MS excel fundamental, understanding spreadsheet starting and exiting the application, determine MS excel, understanding workbook and worksheet, creating workbook, creating workbook files, creating and saving new work book, opening and closing files, creating a new workbook from template, print preview the document, over view of encrypt document and mark as final, MS file type, getting help while you working, Working with MS excel, create a new workbook, entering data, work with style, fonts, editing, find and replace, alignment, editing text and value, editing cell content, using cut, copy and paste, format painter, using smart tags, using bottom border, text formatting, orientation, wrap text, merge cells, number, conditional formatting, sorting, insert rows and columns, insert and delete cell, changing row height, changing column width,

Editing worksheet, insert pivot table and chart, working with illustration, insert chart (column, pie, line, bar area scatter etc.), link, insert header footer, insert object from other application, word art, signature line, and symbol.

Working with page layout, adding theme, color, effect, page setup, margin, orientation, background, print title, page break, scale to fit, using grid, and arrangement. Using function and formulas, understanding function, structure of function, categories of function, inserting function(sum, sum if, auto sum, average, count, count f, max, min, median, mode, date and time, fact, abs, power, using function libraries, calculation. Working with data, get external data, edit with link, connection, sort and filter, advance filter, data validation, text to column, consolidate, scenario manager, goal seek, data table, group , ungroup,

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subtotal, proofing document, spelling , research, thesaurus, translate, using comment, show comments, remove comments, protect sheet , share sheet, make other changes. Working with view, workbook view , custom view, show and hidden, rulers, grids, formula bar, zoom, insert window ,arrange window, split window, switch window, macros, create PDF.

UNIT-4 (PAGE MAKER)

Get started pagemaker, opening and navigation publication, closing publication, using help, creating single page publication, modifying text, working with text block, printing publication, building publication, creating multipage, managing text flow, working with frame, working with page, building multipage publication, including drawing object, adding drawing object, adding graphics, arranging text arounding graphics, merge text and graphics, including object and graphics, formatting character, controlling character spacing, applying character formatting, formatting paragraph, using tabs, using style and library, creating style, applying and editing style, working with library

DATA COMMUNICATION & COMPUTER NETWORK

UNIT- I

Introduction to Data Communication– Network models, protocols and architecture, standards organizations, line configuration, topology, transmission mode, classification of networks, OSI reference model, TCP/IP model.

UNIT- II

Analog and digital signals, Data encoding, parallel and serial transmission, modems, transmission media: guided media, unguided media, transmission impairment, performance, Synchronous and asynchronous transmission.

UNIT- III

Multiplexing, LLC, error detection and correction, flow control, HDLC, LANs- applications, architecture, Ethernet, 802.3 LANs, token ring, FDDI, IEEE 802.6, circuit switching, packet switching, message switching, connection oriented and connectionless services.

UNIT- IV

Principles of internetworking– connection– oriented, connectionless, Routing concepts, routing algorithms– distance-vector routing, link state routing, shortest path routing. Congestion control, QOS, internetworking, network devices.

UNIT- V

Network security requirements and attacks, public key and private key encryption and digital signatures, digital certificate, firewalls, IDS (Intrusion Detection System)

INTERNET & E-MAIL

The history of the internet, what is internet, components of the internet(world wide web, telnet, e-mail, ftp, UseNet, http), pages on the web, retrieving documents on the web-URL(anatomy of a URL), access the world wide web: web browsers(e-mail, telnet, ftp)

Email discussion group, UseNet news, chat and instant messaging, the tool bar, additional toolbar option, useful option on the menu bar, saving web document for later use, download e-mail and print, customising internet.

PROGRAMMING IN C & C++

UNIT- I

Introduction to “C” Language: Fundamentals, simple I/O statements, reading and writing, data types constants, variable, operators & expressions, library function, control statements, if-else, while, do-while, goto, for statements switch, break, looping statements, functions recursion, arrays, multidimensional arrays, strings & pointers.

UNIT- II

Programming in C++, functions, class, object, constructor and destructor: Call by reference, call by value, return by reference, inline function, constant argument, function overloading, static member function, static data member,. Classes: implementing class, classes and members, accessing class members, implementing class methods, array of object, friend function. Constructor & destructors: parameterized constructor, multiple constructor, constructor with default argument, copy constructor, destructor.

UNIT- III

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Operator overloading & type casting: Operator overloading, unary operator overloading, binary operator overloading, manipulates string using operator overloading, type conversions: basic to class, class to basic, class to class.

UNIT- IV

Inheritance, virtual function: single inheritance, multilevel inheritance, multiple inheritance, hybrid inheritance, hierarchical inheritance, virtual base class, abstract class.

UNIT-V

Pointer & File: Pointer to object, this pointer, virtual function and pure virtual function. File: opening and close file, detecting end of the file

RELATIONAL DATABASE MANAGEMENT SYSTEM

UNIT- I

Overview of Database Management: Data, information, data independence, database administration roles, DBMS architecture, different kinds of DBMS users importance of data dictionary, contents of data dictionary, types of database languages. Data models: network, hierarchical, relational. Introduction to distributed database, client/server databases, object-relational databases, introduction to ODBC concept

UNIT- II

Relational Model: Entity relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; concept of keys: candidate key, primary key, alternate key, foreign key; strong and weak entities, case studies of ER modeling generalization; specialization and aggregation, Converting an ER model into relational schema. Extended ER features, introduction to UML, Representation in UML diagram.

UNIT- III

Structured Query Language (SQL): Relational Algebra: select, project, cross product different types of joins (inner join, outer joins, self join); set operations, tuple relational calculus, domain relational calculus, simple and complex queries using relational algebra, stand alone and embedded query languages, introduction to SQL constructs (SELECT...FORM, WHERE... GROUP BY... HAVING ... ORDERBY...), INSERT, DELETE, UPDATE, VIEW definition and use, temporary

tables, nested queries, and correlated nested queries, integrity constraints: Not null, unique, check, primary key, foreign key, reference, triggers.

UNIT- IV

Relational database design: Normalization concept in logical model; pitfalls in database design, update anomalies: functional dependencies join dependencies, Normal forms (1NF, 2NF, 3NF). Boyce code normal form, decomposition, multi-valued dependencies, 4NF, 5NF. Issues in physical design; concepts of indexes, file organization for relational tables, de-normalization, clustering of tables, clustering indexes.

UNIT- V

Introduction to Query processing and protection the database: parsing, translation, optimization, evaluation and overview of query processing. Protecting the database integrity, security and recovery, Domain constraints, referential integrity, assertion, triggers, security & authorization in SQL

MULTIMEDIA

UNIT-1(GRAPHICS)

Graphics design, traditional art and digital techniques, basic of sketching and drawing, fundamental of photography.

Adobe Photoshop, introduction of Photoshop cs3, menu command of Photoshop, tools of Photoshop, understanding colors, using transformation, using paint, using layer and masks, adding text to picture, adding action, restoring image, using drop shadow and reflection, vignettes and edges, creating caricature, playing with text type, filter of Photoshop, keyboard shortcut of Photoshop, filters of Photoshop.

Corel draw, getting started, moving around and viewing drawings, customizing options, drawing and shaping objects, selecting & manipulating objects, transforming objects, outlining & filling objects, arranging objects, using layers, working with special effects

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and texts, special effects, working with text, working with paragraph, special text effects, using symbols and clipart, working with bitmaps, page layout.

Printing, exporting and advanced features, special page layouts, special page layouts, exporting drawings , using styles and templates, custom creation tools, using corel trace, using corel r.a.v.e.

Introduction Adobe Illustrator, What are Vector Graphics, Meta Data, Selection Tools, Magic Wand, Drawing with Path Primitives, Drawing with the Pen Tool.

Drawing in Illustrator, Type & Type Tools, Appearance & Fill, Grouping Objects, Applying Attributes to a Group, Layers, Art Boards, Transforming and Positioning Art, Working with images.

Working Efficiently with Symbols, Working with Masks, Printing, Saving, and Exporting, Choosing Illustrator for Web and Interactive Design.

Types of Printing an Introduction-Letterpress printinglithography-offset printing- different printing processmachines for letterpress, offset, gravure, flexography and screen printing-printing materials, planning a printing, design factors, color application-film assembly and plate makingbinding & finishing, Image editing, color correction, color management, poly master, methods of color proofing,

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Different types of font, text file formats, vector & raster graphics, graphics file formats. Page setting, character & paragraph formatting, indentation, alignments, hyphenation, single & double sided documentation.

Introduction adobe in design, looking at the work area, setting up pages, working with text, setting type, arranging and combining objects, applying color, creating tables, books and libraries, adobe product integration, PDF, print, preflight, and package, migrating from QuarkXPress to in design,

UNIT-2(AUDIO)

Sound, music, track, sound devices, midi, windows sound recorder, equalizers, editors, sound editing software, audacity, sound forge pro, adobe audition, DJ sound(VIRTUAL DJ, DJ MIXER), coding / encoding sound.

UNIT-3(VIDEO)

Basic concept video production, camera light, chroma / luma concept, basic fundamental film making, audio/ video mixer.

Introduction adobe flash professional, Creating Graphics, The

Authoring Environment Drawing tools, Symbols and the H

Library, Draw Scene for Animation Reading Interaction

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Buttons Button Action Script Instance Names- Controlling Nested Objects Animation
Frames and Key frames, Tweens and Guides, Nested Timelines.

On to the Web, Optimizing Your Work, Publishing Flash,
Content to the Web, Advanced Animation, Complex Timeline
Control, Mask Layers, Color Settings, Filters, and Blend
Modes Adding Sound, Importing Graphic Files, Timeline
Action Script, Second Music Video

Introductions ADOBE PREMIERE, Becoming Familiar with
Digital Video, Becoming Familiar with Adobe Premiere, Basic
Video & Audio Editing in Premiere Pro, Fine Tuning in the
Timeline, Adding Transitions, Adding Speed / Slow Motion, Basic Video Effects, Adding
Titles to the Timeline, Exporting your Project (to Camera, VCR, or other delivery
format)M,

Capturing Video from your camera, Adding Graphics,

Intermediate Effect Controls, Fun with Key frames

Intermediate Audio Features and Effects Making a DVD Introduction PINCLE STUDIO,
System Requirements

Transferring AVCHD Footage To Your Computer Copying
AVCHD Footage To A Hard Drive Transferring AVCHD Footage

Directly From The Panasonic AG-HMC70 Or, AG-HMC150 AVCCAM Cameras To Your
Computer, Editing with Pinnacle studio Ultimate version, Importing Your AVCHD
Footage,

Output options, Output To iPod Or iPhone, Output To YouTube, Output to an AVCHD
Disc, Output To A Blue-ray Disc, Output To A DVD Disc.

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Introduction OF AFTER EFFECT, Getting to know the work flow, Creating a Basic Animation Effects and Presets, Animating Text, Shape Layers, Animating a Multimedia Presentation, Animating Layers, working with masks, Distorting objects with the puppet tools, Keying, performing color correction, Building and Animating a 3D Object, Using 3D Features, Advanced Editing Techniques, Rendering and outputting, sound forge Introduction, Editing, encoding, Work on After Effect and Sound forge.

Accounting With Tally

1. Basics of Accounting

Types of Accounts, Golden Rules of Accounting, Accounting Principles, Concepts and Conventions, Double Entry System of Book

Keeping, Mode of Accounting, Financial Statements, Transactions, Recording Transactions

2. Fundamentals of Tally Prime

- Getting Functional with Tally Prime
- Creation / Setting up of Company in Tally Prime

3: Accounting Masters in Tally Prime

- F11:Features
- F12 : Configurations
- Setting up Account Heads

4: Inventory in Tally Prime • Stock

Groups

- Stock Categories
- Godowns / Locations
- Units of Measure
- Stock Items
- Creating Inventory Masters for National Traders

5: Voucher Entry in Tally Prime

- Accounting Vouchers
- Inventory Vouchers
- Invoicing

6: Advanced Accounting in Tally Prime • Bill-wise Details

- Cost Centres and Cost Categories
- Voucher Class and Cost Centre Class
- Multiple Currencies
- Bank Reconciliation
- Interest Calculations
- Budgets & Controls
- Scenario Management

7. Advance Inventory Order Processing

- Reorder Levels
- Tracking Numbers
- Batch-wise Details
- Additional Cost Details
- Bill of Materials (BoM)
- Price Levels and Price Lists
- Stock Valuation
- Zero Valued Entries
- Inventory Ageing Analysis
- Different Actual and Billed Quantities

8: Value Added Tax (VAT)

- Configuring VAT in Tally Prime
- Creating Masters

- Entering Transactions
- Accounting for Return of Goods
- Rate Difference in Purchase / Sales
- Accounting for Interstate Transactions
- Exempt Transactions under VAT
- Purchases from Unregistered Dealers
- Claiming ITC on Capital Goods
- Inter-State Branch Transfers • VAT Reports
- VAT for Composite Dealers

9: Central Sales Tax (CST)

- Basics of Central Sales Tax (CST)
- Enabling CST in Tally Prime
- Recording Interstate Transactions in Tally Prime
- Payment of CST
- CST Reports

10: Point of Sale (PoS)

- Features of Point of Sale (PoS) in Tally Prime
- Configuring Point of Sale in Tally Prime
- Entering POS Transactions • POS Reports

11: Job Costing

- Configuring Job Costing In Tally Prime
- Creating Masters for Job Costing
- Recording Transactions • Job Costing Reports

12: Multilingual Capabilities

- Configuring Tally Prime for Multilingual Capabilities
- Creating Masters

- Entering Transactions in Multiple Languages
- Transliteration
- Generating Reports

13: Technological Advantages of Tally Prime

- Tally Vault
- Security Control
- Tally Audit
- Backup and Restore
- Split Company Data
- Export and Import of Data
- ODBC Connectivity
- Web Enabled, Print Preview and Online Help
- Printing of Reports and Cheques

14: Tally.NET and Remote Capabilities • Overview of Tally.NET

- Configure Tally.NET Features
- Connect Company on Tally.NET
- Create Remote Users
- Authorize Remote Users
- Remote Access

15: Application Management and Controls • Concept of Control Centre

Installing & Activating Tally Prime

Logging to Control Centre

- Managing Accounts using Control Centre

16: Online Help and Support

- Features of Support Centre

- Accessing the Support Centre
- Using Support Centre

17: Service Tax

- Basics of Service Tax
- Configuring Tally Prime for Service Tax
- Creating Masters
- Entering Transactions
- Accounting for Advance Receipts
- Accounting for Opening Service Tax Credit
- Payment of Service Tax • Service Tax Reports

18: Tax Deducted at Source

- Basic concepts of TDS
- Configuring TDS in Tally Prime
- Processing Transactions
- TDS Reports

19: Tax Collected at Source

- Basic Concepts of TCS
- Configuring Tally Prime for TCS
- Creating Masters
- Entering Transactions
- TCS Reports

20: Excise for Dealers

- Basic Concepts
- Salient Features of Dealer Excise
- Enabling Dealer Excise in Tally Prime

- Creating Masters
- Entering Transactions
- Excise Reports
- Sales & Purchase Extract

21: Excise for Manufacturers

- Basic Concepts of Excise Duty
- Configuring Excise in Tally Prime
- Creation of Masters
- Processing Transactions
- Excise Reports

22: Payroll Accounting and Compliance

- Configuring Payroll in Tally Prime
- Creating Payroll Masters
- Processing Payroll in Tally Prime
- Accounting for Employer PF Contributions
- Accounting for Employer ESI Contributions
- Payment of Professional Tax
- Generating Payroll Reports

GST

Why is GST a big deal?, Time, Place, and Value of Supply

Registering under GST, GST Returns-How and When to File Them

Mixed Supply and Composite Supply, Composition Levy

What is Aggregate Turnover, Input Tax Credit in Detail

Reverse Charge, What is GST Compliance Rating?

Impact of GST on Manufacturers and FMCG industry

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GST vs the Current Indirect Tax Structure
Composition Levy , Returns , Set Off Input Tax Credit against GST Liability
GST Input Tax Credit: Explained
8 Supply of Goods and / or Services
Time, Value and Place of Supply
Accounts and other records
11 Entitlement of Input tax credit: Non-entitlement of Input Tax credit: Refund of Tax
Tax wrongfully collected and deposited with the Central or a State Govt.
Documents as Evidence: 16 Transitional Provisions, Payment of Tax 18 Consequences of Non-compliances

Programming Visual Basic

What Is the Microsoft .NET Framework? 1.2 What Is Visual Basic .NET? 1.3 An Example Visual Basic .NET Program
2. The Visual Basic .NET Language 2.1 Source Files 2.2 Identifiers 2.3 Keywords 2.4 Literals 2.5 Types 2.6 Namespaces 2.7 Symbolic Constants 2.8 Variables 2.9 Scope 2.10 Access Modifiers 2.11 Assignment 2.12 Operators and Expressions 2.13 Statements 2.14 Classes 2.15 Interfaces 2.16 Structures 2.17 Enumerations 2.18 Exceptions 2.19 Delegates 2.20 Events 2.21 Standard Modules 2.22 Attributes 2.23 Conditional Compilation 2.24 Summary
3. The .NET Framework 3.1 Common Language Infrastructure (CLI) and Common Language Runtime (CLR) 3.2 Common Type System (CTS) 3.3 Portions of the CLI 3.4 Modules and Assemblies 3.5 Application Domains 3.6 Common Language Specification (CLS) 3.7 Intermediate Language (IL) and Just-In-Time (JIT) Compilation 3.8 Metadata 3.9 Memory Management and Garbage Collection 3.10 A Brief Tour of the .NET Framework Namespaces 3.11 Configuration 3.12 Summary
4. Windows Forms I: Developing Desktop Applications 4.1 Creating a Form 4.2 Handling Form Events 4.3 Relationships Between Forms 6 4.4 MDI Applications 4.5 Component Attributes 4.6 2-D Graphics Programming with GDI+ 4.7 Printing 4.8 Summary
5. Windows Forms II: Controls, Common Dialog Boxes, and Menus 5.1 Common Controls and Components 5.2 Control Events 5.3 Form

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and Control Layout 5.4 Common Dialog Boxes 5.5 Menus 5.6 Creating a Control
5.7 Summary 6. ASP.NET and Web Forms: Developing Browser-Based
Applications 6.1 Creating a Web Form 6.2 Handling Page Events 6.3 More About
Server Controls 6.4 Adding Validation 6.5 Using Directives to Modify Web Page
Compilation 6.6 ASP.NET Objects: Interacting with the Framework 6.7 Discovering
Browser Capabilities 6.8 Maintaining State 6.9 Application-Level Code and
global.asax 6.10 Web-Application Security 6.11 Designing Custom Controls 6.12
Summary 7. Web Services 7.1 Creating a Web Service 7.2 Testing a Web Service
with a Browser 7.3 Web-Service Descriptions 7.4 Consuming a Web Service 7.5
Web-Service Discovery 7.6 Limitations of Web Services 7.7 Summary 8. ADO.NET:
Developing Database Applications 8.1 A Brief History of Universal Data Access 8.2
Managed Providers 8.3 Connecting to a SQL Server Database 8.4 Connecting to
an OLE DB Data Source 8.5 Reading Data into a DataSet 8.6 Relations Between
DataTables in a DataSet 8.7 The DataSet's XML Capabilities 8.8 Binding a DataSet
to a Windows Forms DataGrid 8.9 Binding a DataSet to a Web Forms DataGrid
8.10 Typed DataSets 8.11 Reading Data Using a DataReader 8.12 Executing
Stored Procedures Through a SqlCommand Object 8.13 Summary A. Custom
Attributes Defined in the System Namespace AttributeUsage CLSCompliant
ContextStatic Programming Visual Basic .NET 7 Flags LoaderOptimization
MTAThread NonSerialized Obsolete ParamArray Serializable STAThread
ThreadStatic B. Exceptions Defined in the System Namespace C. Cultures D.
Resources for Developers D.1 .NET Information D.2 Discussion Lists E. Math
Functions

WEB DESIGN

What is web design? A. Overview of web design B. Linear vs. non-linear (interactive) design C.
Introduction to web pages, their purpose D. Working with a web browser E. Analyzing different
kinds of website designs 2. Design issues in web page design A. Function and purpose B. Content
C. Visuals D. Interface design E. Interactivity 3. Web design process A. Define content B. Time
line C. Budget and resources 4. Visual Design A. Visuals B. format C. type D. image E. color

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scheme 5. Interface and interaction A. Organizing and grouping content B. Screen layout C. Menus and navigation 6. Learning WordPress A. WordPress intro and overview 1. creating an account 2. managing your account B. WordPress interface 1. menus 2. dashboard 3. file structure 4. upgrading C. WordPress settings 1. general 2. text 3. media 4. links D. Site design 1. menus 2. categories 3. navigation 4. headers 5. links 6. color scheme 7. fonts choices 8. layout options E. Platform adaptation 1. design for desktop 2. design for mobile F. Themes and templates 1. choose a theme 2. customize a theme 3. working with templates G. Widgets and plugins 1. adding widgets 2. adding plugins H. Website content 1. posts 2. pages 3. tags I. Menus 1. add menus 2. edit menus J. Media 1. edit images 2. create and manage galleries 3. audio 4. video K. Customize a WordPress theme L. Blogs 1. setting up a blog 2. posting to a blog 3. manage a blog M. Other 1. search engine optimization 2. sitemaps 3. tracking site statistics 7. Updating a website 8. Graphics software for creating web page images and graphics A. Photoshop functions and techniques specific to web page design B. Illustrator functions and techniques specific to web page design C. Image scanning 9. Copyright laws and how they apply to art and design 10. Portfolio presentation.

ANDROID USING PYTHON

[1. Introduction to Python Language](#)

What is Python, Uses of Python Programming Language / Python Applications, Python for Software development, Python for Networking, Python for Automated Testing, Features of Python Programming Language, Implementations of Python, and Python career opportunities.

[3. Python Language Syntax](#)

Modes of Programming in Python, Interactive mode programming, Script mode programming, Creating Python program file, Python Identifiers, Python keywords, Lines and Indentation, Spilt Python statements, Join Python Statements, Writing code blocks, Comments in Python, and Quotation in Python.

[4. Python Keywords and Identifiers](#)

Python keywords or Reserved words, Python keywords define the syntax and structure of the Python language, Python keywords are case sensitive, Python literals (True, False, Null),

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Python Identifiers, class names, variable names, function names, method names, and Identifier naming rules.

[5. Python Comments](#)

Purpose/use of comments in Computer Programming, Comments for Understanding Python code, Python Comment Syntax, Python Single line comment, Multiline comment in Python, and writing Python comments.

[6. Python Variables](#)

What is Variable?, Declaration of Variables, Assign Values to Variables, Initialization, Reading, Variable naming restrictions, and Types of Python Variables.

[7. Python Data Types](#)

What is Data Type?, Implicit Declaration of Data Types, Python Numbers (Integers, floating-point numbers, and complex numbers), Python Strings, Python boolean data type.

[8. Python Operators](#)

Python Arithmetic, Comparison/Relational Operators, Increment Operators, Logical operators, Python Identity Operators, and Python Operators Precedence.

[9. Python Control Flow – Decision Making](#)

(Decision Making / Conditional Statements in Python, Simple If Structure, if-else structure, if elif structure, and nested If Structure. Execute a block of Statements when the condition is true, Execute a block of Statements when a compound condition is true, Execute a block of Statements when the condition is true otherwise execute another block of Statements, Decide among several alternates(elif), and Execute a block of Statements when more than one condition is true (Nested if))

[10. Python Control Flow – Looping](#)

((Python Control Flow Statements, Python Loop Statements. Python while loop, Python for loop, Python range(), Python Nested Loop Structures, and Inserting conditions in Loops and vice versa.))

[11. Python Control Flow – Branching](#)

(Python Flow Control – Branching Statements, A branching statement is a statement that determines whether other statements will be executed. Python Branching Statements – break, continue, pass)

[12. Python Numbers](#)

(Python Number data types are for storing numeric values, Python supports integers, floats, and complex numbers.)

[13. Python Strings](#)

(String is a sequence of characters written in single quotes or in double quotes or in three double quotes. The string may have Alphabets, Numbers, and Special Characters. Operations on Strings, Finding String length, Concatenating Strings, Print a String multiple times, Check whether the String has all numeric characters?, and Check whether the String has all alphabetic characters?.)

[14. Python Lists](#)

((Python Data Structures, Create Python Lists, Update Python Lists, Delete Elements from Python Lists, and Built-in Functions & Built-in Methods for Python Lists.))

[15. Python Tuples](#)

(Tuples are sequences, just like lists. The differences between tuples and lists are, the tuples cannot be changed unlike lists and tuples use parentheses, whereas lists use square brackets.)

[16. Python Sets](#)

(A Python set is a collection that is unordered and unindexed. In Python sets are written with curly brackets.)

[17. Python Dictionaries](#)

(A dictionary is a collection that is unordered, changeable, and indexed. In Python dictionaries are written with curly brackets, and they have keys and values.)

[18. Python Arrays](#)

(Array is a container that can hold a fixed number of items and these items should be of the same type. Python does not have built-in support for Arrays, but Python Lists can be used instead.)

[19. Python user-defined Functions](#)

(In all programming and scripting languages, a function is a block of program statements that can be used repetitively in a program. It saves the time of a developer. In Python concept of function is the same as in other languages. There are some built-in functions that are part of Python. Besides that, we can define functions according to our needs.)

[20. Python Built-in Functions](#)

(Python has several functions that are readily available for use. These functions are called built-in functions.)

[21. Python – Modules](#)

A module allows you to logically organize your Python code. Simply, a module is a file consisting of Python code. A module can define functions, classes, and variables. A module can also include runnable code.

[22. Python User Input](#)

Python user input from the keyboard can be read using the input() built-in function. The input from the user is read as a string and can be assigned to a variable.

[23. Python File Handling](#)

Python too supports file handling and allows users to handle files i.e., to read and write files, along with many other file handling options, to operate on files.

[24. Python Exceptions Handling](#)

Python provides us with a way to handle the Exception so that the other part of the code can be executed without any disruption. However, if we do not handle the exception, the interpreter doesn't execute all the code that exists after that.

[25. Regular Expressions](#)

(A RegEx, or Regular Expression, is a sequence of characters that forms a search pattern. Python has a built-in package called re, which can be used to work with Regular Expressions. The re module offers a set of functions that allows us to search a string for a match. RegEx Functions, Metacharacters, and Special Sequences.)

