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ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
KARNATAK UNIVERSITY, DHARWAD
NAAC Accredited with 'A' Grade-2014

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Department Of Computer Science

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ಉ.ಸಂ./Ref.No: KU/Comp.Sc:

Date: 23/02/2022

Certificate for effecting revision of the Syllabi

This is to certify that curriculum of PGDCA in syllabus was revised during the year 2017-2018 and 78% of content was replaced/added/modified.

Sundhar
Chairman
23/02/2022

KARNATAK UNIVERSITY, DHARWAD
PGDCA
Percentage (78%) of Revision of Syllabus

Course Code and Name	PGDCA Syllabus 2008-2009	PGDCA Syllabus 2017-2018
PGDCA 1.1 INTRODUCTION TO OFFICE AUTOMATION	<p>Unit-I Basics: History and generations of Computer, Types of Computer, Organization of Computer System, Hardware and Software Components, Memory unit: Types of memory, ROM, RAM, types of RAM & ROM, Introduction to cache and virtual memory. 12 hrs</p> <p>Unit-II Number system: Binary Octal, Hexadecimal, Number base conversion, Binary addition, Subtraction, One's and Two's compliment, Character codes – ASCII, EBCDIC. 10 Hrs</p> <p>Unit-III Operating System: Types of operating system, Functions, Introduction to DOS and WINDOWS operating system. Software: Types of languages, Types of software (System and Application software). 10 Hrs</p> <p>Unit-IV Network and Internet: History and evolution of Computer Network, Types of network (LAN, MAN & WAN), Internet and its applications.</p> <p>Office Automation: Working with MS-Word, MS-Excel and MS-POWER POINT 18 Hrs</p>	<p>UNIT-I Introduction to computers: Anatomy of Computer System, Hardware and Software Components, Memory unit: Types of memory, ROM, RAM, types of RAM & ROM, Introduction to cache and virtual memory. [2 Hours]</p> <p>UNIT-II MS-word: Introduction, what is Word-Processing, Important Features of MS-Word, Creating and Editing a documents, Entering Text in the documents, Moving Around the documents, Formatting a Document Formatting A Document: Format and align text, Line and paragraph spacing, add bulleted and numbered lists, add borders and shading, Changing the Layout of a Document. Using Editing and Proofing Tools: Spell and grammar check, ShortcutMenus, Find and replace text. Working with Tables: Insert a table, convert a table to text, Navigate and select text in a table, resize parts of a table, align text in a table, format a table, Insert and delete columns and rows, Borders and shading, Merge table cells. [20 Hours]</p> <p>UNIT-III MS-Excel: The Basics Creating a New Workbook Navigating in Excel Moving the Cell Pointer Using Excel Menus Using Excel Toolbars: Hiding, Displaying,</p>

		<p>and Moving Toolbars Entering Values in a Worksheet and Selecting a Cell Range, saving a Workbook & Reopening a saved workbook</p> <p>Formatting a Worksheet: Formatting Fonts & Values Adjusting Row Height and Column Width, Changing Cell Alignment, Adding Borders, Applying Colors and Patterns, Using the Format Painter, Using AutoFormat Merging Cells, Rotating Text and using AutoFit</p> <p>Managing your workbooks: Inserting and Deleting Worksheets Renaming and Moving Worksheets,protecting a Workbook Hiding Columns, Rows and Sheets, Entering Date Values and using AutoComplete</p> <p>Formulas: Creating a basic Formula Calculating Value Totals with AutoSum Editing & Copying Formulas Fixing Errors in Your Formulas</p> <p>Creating & Working with Charts: Creating a Chart Moving and Resizing a Chart Formatting and Editing Objects in a Chart,working with Pie Charts Adding Titles, Gridlines, and a Data Table Formatting a Data Series and Chart Axis Annotating a Chart Working with 3-D Charts. [20 Hours]</p> <p>UNIT-IV</p> <p>PowerPoint: What's New in PowerPoint, Understanding the PowerPoint Program Screen.</p> <p>Presentation: Creating a New Presentation, Inserting and Deleting a Slide and Selecting a Layout Opening a Presentation, Navigating a Presentation Using Undo, Redo and Repeat Saving a Presentation.</p> <p>Inserting and Editing Text: Inserting Text Editing Text, Cutting, Copying, and Pasting Text, Moving and Copying Text with the Mouse, Checking Your Spelling, Finding and Replacing Text Inserting Symbols and Special Characters</p>
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		<p>Formatting Text: Changing Font Type, Changing Font Size, Changing Font Color, Changing Font Style, Using the Font Dialog Box, Using the Format Painter Using WordArt.</p> <p>Formatting a Presentation: Using Document Themes, Changing the Background of a Slide Rearranging Slides Adding Headers and Footers Using the Slide Master Working with Bulleted and Numbered Lists Changing Paragraph Alignment and Line Spacing Working with Tabs and Indents.</p> <p>Working with Objects: Inserting Clip Art Inserting Pictures and Graphics Files Formatting Pictures and Graphics Inserting Shapes Formatting Shapes Resize, Applying Special Effects to Objects Grouping Objects.</p> <p>Working with Tables: Creating a Table, Adjusting Column Width and Row Height, Inserting and Deleting Rows and Columns, Merging and Splitting Cells, Working with Borders and Shading Applying a Table Style.</p> <p>[6 Hours]</p>
<p>PGDCA 1.2: C Programming</p>	<p>Unit-I Introduction to Programming Paradigms: Structured programming, Procedural programming, object Oriented programming, Functional programming and Logic programming. Language translation issues: Programming language syntax, stages in translation-analysis of the source program, synthesis of the object program, BNF grammars – syntax, parse trees, ambiguity, extension to BNF notation, attribute grammars. Data types: Properties of type and objects, data objects, variables and constants, data types, specification and implementations of elementary data types, declaration, type checking and type conversion, assignment and initialization, structured data types- vectors and arrays, records, lists, character strings, files and input-output. 10 Hrs</p>	<p>UNIT-I Introduction to Programming Paradigms: Evolution of programming languages, Structured programming, Procedural programming, object oriented programming, Functional programming and Logic programming, compilation process, object code, source code, executable code, fundamentals of algorithms, flow charts. [10Hours] UNIT-II Fundamentals: C character set Identifiers & Keywords, data types, constants, variables and arrays, declarations, expressions, statements, symbolic constants Data types: Properties of type and objects, data objects, variables and constants, data types, specification and implementations of elementary data types, declaration, type</p>

	<p>Unit-II Subprogram Control: subprogram sequence control, attributes of data control, shared data in subprograms, advances in languages design, comparative study of programming language. Fundamentals: C character set Identifiers & Keywords, data types, constants, variables and arrays, declarations, expressions, statements, symbolic constants. Operators and Expressions: Arithmetic operators, unary operators, relational and logical operators, assignment operators, conditional operators, Library functions. Control Statements: Branching, Looping, Nested control structures, switch break, continue statements, comma operator, go to statement.</p> <p style="text-align: center;">10 Hrs</p> <p>Unit-III Functions: Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion. Program structure: Storage classes, automatic variable, global variables, static variables. String: String variables, declaring & initializing string variables, reading & writing strings, string functions – concatenation, comparison, copy, length implementing the above functions without using built-in string functions, arithmetic operations on characters, programming examples.</p> <p style="text-align: center;">12 Hrs</p> <p>Unit-IV Pointers: Fundamentals, declaration, passing pointers to functions, pointers and arrays, dynamic memory allocation, operations on pointers, arrays of pointers, passing functions to other functions. Structures and Unions: Definition a structure, processing a structure, user defined data types (typedef), structures and pointers, passing structure to functions, self-referential structure, unions.</p>	<p>checking and type conversion, assignment and initialization, structured data types- vectors and arrays, records, lists, character strings, files and input-output. [12 Hours] UNIT-III Operators and Expressions: Arithmetic operators, unary operators, relational and logical operators, assignment operators, conditional operators, Library functions. [8 Hours] UNIT-IV Control Statements: Branching, Looping, Nested control structures, switch break, continue statements, comma operator, go to statement. Functions: Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion. [8 Hours] UNIT-V Arrays: Defining and processing, one-dimensional Array, Multidimensional Array declaration and their applications, Passing arrays to a function. String: String variables, declaring & initializing string variables, reading & writing strings, string Functions - concatenation, comparison, copy, length implementing the above functions without using built-in string functions, arithmetic operations on characters, programming examples. [10 Hours]</p>
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	<p style="text-align: center;">10 Hrs</p> <p>Unit-V Data Files: Opening and closing a data file, creating a data file, processing a data file, unformatted data file.</p> <p style="text-align: center;">8 Hrs</p>	
<p>PGDCA 1.3 WINDOWS OPERATING</p>		<p>UNIT-I Windows Overview: History, understanding the OS architecture, Graphics interface, Benefits, Screen attributes: icons and bars, Mouse vs. keyboard input, Features and accessories of the Windows program, Objects and their properties. [8 Hours]</p> <p>UNIT-II Installing Windows: Exploring OS Editions, Planning Clean Installs vs. Upgrades, Understanding Installation Types, Using Virtualized Installations Program management: Creating, saving and editing documents, Concurrent execution of programs, Sharing data between programs Folder and file management: Working with files, Naming files, Copying and moving files, Deleting files, Managing folders a. Creating, Viewing, Expanding and collapsing. [10 Hours]</p> <p>UNIT-III Managing the Desktop: Understanding Desktop Features, Working with Gadgets, Changing Display Settings, Creating Shortcuts Control panel: Customizing screens, Screen colors, Pattern, Spacing icons, selecting time/date, Customizing printing, changing the print queue, configuring the printer(s), Adding printers. Working with fonts: changing, removing, adding, Customizing mouse and keyboard use, System properties and the device</p>

		<p>manager. [10 Hours] UNIT-IV Management tools: DOS sessions, Explorer, Memory configuration, Safe mode Device Management: Understanding Device Drivers, Exploring Plug-and-Play Operations, Connecting and Managing Devices, Using Disk Defragmenter, Performing a Disk Cleanup, Scheduling Tasks. Managing Applications: Planning for Local and Network Applications, Install and uninstall applications, Configuring and Removing Applications, Using Group Policy for Application Control, Understanding Application Virtualization, The Difference between Services and Standard Applications. [10 Hours] UNIT-V Controlling Malware: Understanding Malware Types, Planning for Malware Protection, Understanding Microsoft Protection Methods Backup and Recovery: Planning for Backups, Testing Recovery Processes, Working with System Restore, Using Recovery Boot Options. Windows Update: Understanding Hotfixes and Service Packs, Planning for Windows Update and Microsoft Update. [10 Hours]</p>
<p>PGDCA 2.1 PAGE MAKER AND ADOBE PHOTOSHOP</p>		<p>PAGE MAKER UNIT I Introduction: Introduction to Page Maker Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns, formatting text. [10 Hours] UNIT-II Master Pages & customization: Master Pages and Stories, Story Editor, Menu Commands</p>

		<p>and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor. [10 Hours] ADOBE PHOTOSHOP UNIT-III Introduction: Introduction to Adobe Photoshop & Documents, Various Graphic Files and Extensions, Vector Image and Raster Images, Various Colour Modes and Models. [10 Hours] UNIT-IV Layers & Filters: Introduction to Screen and Work Area, Photoshop Tools & Palettes , Layers Palette , Working with Layers , New Layer via Cut , New Layer via Copy , Working with Images, The Filter Menu, Filter Gallery , Extract Filter, Noise Filters, Sketch Filters. [10 Hours] UNIT -V Printing and Customization: Import, Export, Automate, Printing, Customize Workspace, Creating an Action. [8 Hours]</p>
<p>PGDCA 2.2 Corel DRAW</p>		<p>UNIT-I Introduction to CorelDRAW: Use and importance in Designing, Various Graphic Files and File Extensions , Vector Image and Raster Images , Introduction to Screen and Work Area. [10 Hours] UNIT-II Introduction to Tools of CorelDRAW: Managing Palettes , Working with Images, Patterns and Textures , Working with Shapes, Colours and Fills , Image Rasterisation and Editing, Transformation Menu. [10 Hours] UNIT-III CorelDRAW Files: Coreldraw Files</p>

		<p>and supporting documents, Import and Export of Files and File formats Page Setup and Designing, Using Styles and Templates, Working with Text, Formatting Text, Text Attributes. [10 Hours]</p> <p>UNIT-IV</p> <p>Page Layout and Layers: Designing Different Page Layouts, Column Layout, Special Effect to Objects and Texts, Contour Tool ,Layout for News Paper and Magazines, Working with Layers Hiding/Showing Layers - Deleting Layers, Masking Layers. [10 Hours]</p> <p>UNIT-V</p> <p>Printing and Customization: Preparation of Visiting Cards & Invitation Cards, Shaping Dockers & Logo Design Introduction Brochure & Books, Introduction to Magazine Designing, Web Photo Gallery Printing. [8 Hours]</p>
<p>PGDCA 2.3 TALLY AND SPSS</p>		<p>TALLY</p> <p>Unit-I</p> <p>Manual Accounting: Accounting, Need for accounting, Types of accounts, Rules of debit & credit, Accounting principles or standards, Accounting concepts, Accounting conventions, Accounting system, Recording transactions in journal, Ledger (Classifying), Trial balance, Final Accounts, Trading & P/L statement, Balance sheet, Adjustment Entries, Summary. [8 Hours]</p> <p>UNIT-II</p> <p>Computerized Accounting: Installing Tally – Requirements & procedure for installing tally, Education mode, Changing default settings through tally. Opening screen of tally, Creating Company, shutting a company, Altering/Modifying existing Company, Buttons on the button Panel</p> <p>Accounting Information: Menu related to accounts, Groups, Managing</p>

		<p>Groups, Creating new group & sub group, Displaying, altering & deleting a group, Creating, Displaying & altering multiple groups.</p> <p>Ledgers: Displaying, altering & deleting single and Multiple Ledgers.</p> <p>[8 Hours]</p> <p>UNIT-III</p> <p>Cost categories & Cost centers: Creating, Displaying, Altering & Deleting a cost category and cost centers, Vouchers in Tally, Inventory information, stock categories, stock item, Multiple Stocks, Multiple Godowns, reports and internet capabilities.</p> <p>[8 Hours]</p> <p>SPSS</p> <p>UNIT-IV</p> <p>Introduction to PASW: Menus, Tool Bar, Dialogue Box, Designate Window, Basic steps for performing any Statistical Procedure</p> <p>Data Management: Creating a Data File, Defining Variables, Entering & Saving Data, Opening an existing Data File, Inserting Variables, Inserting Cases, Identifying Duplicate Cases, Identifying Unusual Cases, Sorting Cases, Merging a File: Add Cases, For Adding Variables, Data Aggregation, Splitting File, Selecting Cases, Listing Cases.</p> <p>[8 Hours]</p> <p>UNIT-V</p> <p>Data Transformation: Computing a New Variable, Recoding Variables, Types of measurement Scales, Descriptive Statistics, Crosstabs.</p> <p>Describing Data Graphically: Line Chart, Pie Chart, Bar Chart, Histogram and the Standard Normal Curve, Box Plot, Scatter Diagram, P-P Plot, Q-Q Plot, Chart Builder, Formatting Charts.</p> <p>[8 Hours]</p> <p>UNIT-VI</p> <p>One Sample t-Test: Hypothesis testing, Independent Sample t-Test, Sample t-Test, Procedure for</p>
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