

Syllabus on Vocational Education and Training Course (VTC)

Paper Title	: Desktop Publishing - I							
CODE	: VTC: 243.2							
Number of Credits	: 4							
Semester	: III							
No. of Theory Hours Per Week	: One (1 hour)							
No. of Practical Hours per Week	: Three (3 Hours)							
Outline of the Paper:								
Type of Course	Units in the VTC	Hours	Credits	Total Marks	Distribution of Marks (as per OC-8)			
Desktop Publishing - I					In-Semester		End-Semester	
					Theory	Practical	Theory	Practical
	Unit-I Theory (25 Marks)	15			25			
	Unit-II to IV Theory (75 Marks)	90	4	100		15		60
Marks Distribution	: Internal Assessment: 40 : External Assessment: 60							
Course Objectives	<ol style="list-style-type: none"> 1. To describe the fundamental concepts of computer hardware and software. 2. To explain the proficiency in working with Graphical User Interface (GUI) based operating systems. 3. To use word processing, spreadsheets, and presentation efficiently. 4. To Recognize the basic functions and features of word processing, spreadsheets, and presentation software. 5. To efficiently produce, edit, format, and manage documents, spreadsheets, and presentations. 6. Enhance productivity through the use of advanced features and techniques within each Office application. 							
Course Learning Outcome	At the end of the course students are able to: <ol style="list-style-type: none"> 1. create, format, and edit documents with proficiency and utilise the advanced formatting tools, incorporate tables, images, and graphics. 2. specify master document collaboration, use reviewing features and mail merge. 3. develop spreadsheets for data analysis, calculation, and data visualisation using charts and graphs. 4. apply formulas and functions to perform calculations efficiently and explore data analysis tools such as pivot tables and filters. 5. design engaging and professional presentations using multimedia elements. 6. combine content effectively with slides, layouts, and themes and employ animations & transitions to enhance presentation delivery. 							
Unit I: (Theory) 15 Hours	Computer fundamentals: <ul style="list-style-type: none"> • Computer, block diagram of a computer, functions of the 							

	<p>Different Units, Input and Output device, Memory hierarchy (Registers, Cache Memory, Primary Memory, Secondary Memories),</p> <ul style="list-style-type: none"> • Concepts of Hardware and Software, Types of software - system software, application software, utility software, Open source, freeware and proprietary software. Programming language, compiler, interpreter and translator. • Concept of Computing, Units of Memory (Bits, Bytes), Operating System, types of Operating System, • Functions of Operating System. Networking Concept (LAN, MAN, WAN), Internet.
<p>UNIT-II: (Practical) 30 Hours</p>	<p>Operating Systems:</p> <ul style="list-style-type: none"> • Graphical User Interface, Basics of (MS-WINDOWS/LINUX), Desk Top, Task Bar, Start Up Menu Working with programs and icons-Adding, removing, starting and quitting programs and icons. • Working with files and folders-creating, deleting, opening, finding, copying, moving and renaming files and folders. • Control Panel, setting, My Computer, Recycle bin, Desktop & its terminology, Set up using Control panel, accessories, File Management. <p>Word Processor:</p> <ul style="list-style-type: none"> • Overview of Word Processing, parts, types of menus, opening, creating, saving, cut, copy, paste, paste especial, print and print preview, Find and Replace. • Character and paragraph formatting. Bullets & Numbering, spelling and grammar, Auto Correct, symbols, equations, page number, footnote, end note, Header/Footer, Clip Art, Smart Art. Border and shading, Table handling, Hyperlink, Bookmark, Cross reference, Mail merge, Label & Envelope and important shortcut keys.
<p>UNIT-III: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Spreadsheet – Overview, Opening, creating, saving worksheet and workbook. Copy & paste, insert rows/columns, cell, range, fill series, print and print preview. Formatting Cells; Selecting Cells, Entering Text and Numeric Data into the Cells, Applying Fonts and Background Colour, Aligning Data, Merging Cells, Text Wrapping, Number Formatting – Text, Percentage, Currency, Dates. • Formulas and Functions – Performing Basic Mathematical Operations using Formula, Applying Formulas using Cell Names and Range, Performing Calculation using basic Numerical and Mathematical Functions. If and nested if function, Logical Functions-AND, OR, NOT. • Filters, Grouping and Charts- Sort, filter, advance filter, graphs, charts, conditional formatting rules, data

	validation, Introduction to Pivot Tables and Pivot Charts.
UNIT-IV: (Practical) 30 Hours	<ul style="list-style-type: none"> • Presentation: Overview, slides, designing slides, background design, auto content wizard, themes and styles. Animations, slide transition and build effects, action buttons and rehearse timing and slideshow. Sound effects, charts, graphs, smart art, media clips, objects, tables, slide view, master Slide.
Assignments	<ol style="list-style-type: none"> 1. Customize the desktop background, add/remove icons, and organize the taskbar. Demonstrate the use of the Start Menu to open programs and access settings. 2. Create, delete, open, find, copy, move, and rename files and folders using both the graphical interface and command line (where applicable). 3. Open a new document, type text, use cut, copy, paste, and paste special functions to paste in a different folder 4. Create a text document and save it under different names using save as use character and paragraph formatting, apply bullets and numbering, check spelling and grammar 5. In the above created document insert symbols, equations, page numbers, footnotes, and endnotes 6. In a document create and format tables, insert hyperlinks, bookmarks, and cross references 7. Open, create, and save worksheets and workbooks. Copy and paste data, insert and delete rows/columns, and apply print and print preview settings. 8. Format cells by selecting cells, entering text and numeric data, applying fonts and background colors, aligning data, merging cells, and text wrapping. Use number formatting for text, percentage, currency, and dates 9. Perform basic mathematical operations using formulas, apply formulas using cell names and ranges, and use basic numerical and mathematical functions. Implement IF and nested IF functions along with logical functions 10. Sort and filter data, use advanced filter options, create graphs and charts, and apply conditional formatting rules. Explore data validation techniques and create pivot tables and pivot charts. 11. Create a new presentation, design slides, apply background designs, use auto content wizard, and apply themes and styles. 12. Add animations to slide elements, use slide transitions, and build effects. Include action buttons and rehearse timing for the slideshow.

Suggested Readings	<ol style="list-style-type: none"> 1. Curtis, F. L. Joan , Microsoft Office Step by Step (Office 2021 and Microsoft 365), Pearson Education ; 1st edition, 2022. 2. Gurdy, L. F. Ellen and L. Mary , OpenOffice.org For Dummies, John Wiley & Sons publication, 2004 3. Kevin,W. Essential Office 365 Third Edition: The Illustrated Guide to Using Microsoft Office (Computer Essentials)”, Elluminet Press, 2018. 4. Matt ,V. Microsoft Office 365:A Complete Guide to Master Word, Excel and PowerPoint 365 for Beginners and Pro, Kindle Edition, 2021. 5. Sinha P. and P. K. Sinha, Computer Fundamentals, (Eight Edition) New Delhi: BPB Publications, 2004. 6. Steinberg,J. Open Office Basic: An Introduction, Createspace Independent Publication, 2012.
Requirements	<p>Name of the Tools and Equipment with Specification</p> <ul style="list-style-type: none"> • CPU: 32/64 Bit, 7th Generation or higher, i3 or latest processor, Speed: 3 GHz or Higher. • RAM:- 8 GB or higher, 1TB HDD/SDD, Wi-Fi Enabled. • Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB • Keyboard and Monitor (as available in the market). Or All in one PC (As per above configuration) Licensed Operating System and Antivirus compatible with trade related software • Wi-Fi Router With wireless connectivity • Broadband connection with min.2 mbps speed/Optical Fibre <p>Software Requirement (Latest Version)</p> <ul style="list-style-type: none"> • MS Office 2010 or the latest version available at the time of procurement • Antivirus or Total security for – clients/workstations in profile • Adobe Creative Suite • Corel Graphic Suite • Regional Language Software <p>Any other item as required</p>
Qualified Instructors	<ul style="list-style-type: none"> • Instructors with experience in Desktop Publishing and teaching. • Certifications or relevant qualifications in Desktop Publishing

Paper Title	: Desktop Publishing -II							
CODE	: VTC: 263.2							
Number of Credits	: 4							
Semester	: IV							
No. of Theory Hours Per Week	: One (1 hour)							
No. of Practical Hours per Week	: Three (3 Hours)							
Outline of the Paper:								
Type of Course	Units in the VTC	Hours	Credits	Total Marks	Distribution of Marks (as per OC-8)			
Desktop Publishing-II					In-Semester		End-Semester	
					Theory	Practical	Theory	Practical
	Unit-I Theory (25 Marks)	15	4	100	25			
Unit-II to IV Theory (75 Marks)	90				15		60	
Marks Distribution	: Internal Assessment: 40 : External Assessment: 60							
Course Objectives	<ol style="list-style-type: none"> 1. To understand the basics of desktop publishing. 2. Introduction to computer networks, internet 3. Installation and usage of printer and scanner. 4. Learn to use photoshop and PageMaker. 							
Course Learning Outcome	<p>At the end of the course students are able to”</p> <ol style="list-style-type: none"> 1. perform desktop publishing 2. identify networking concepts and applications 3. make use of mails, attachments and social networking 4. install and use printers and scanners in the network 5. describe and work with Photoshop and PageMaker 6. apply it to text, images, graphics and animated gifs 							
Unit I: (Theory) 15 Hours	<ul style="list-style-type: none"> • Introduction to DeskTop Publishing, • Merits and Demerits. Typography, Types(Fonts) Type sizes, Different families(Style). • Point system and other systems of measuring, Casting off, Proofreading and its marks, House style, Composing Process • Introduction of various methods of composing Computer to plate, Paper Introduction and preparation. Various paper sizes, Various paper calculations. 							
UNIT-II: (Practical) 30 Hours	<ul style="list-style-type: none"> • Introduction to Computer Networks: Install network printer. Use of file and printer sharing in peer-to-peer connection. • Browse the Internet for information (use at least 3 popular browsers). • Practise to create and use e-mail for communication with attachment, priority setting, address book. 							

	<ul style="list-style-type: none"> • Communicate with text, video chatting and social networking sites. • Use an online dictionary, translation software, storage space, share files with e-mail links. Scanner, • How to scan on a Windows computer, Different settings of scanner. Scan the file and save to the desired destination on the computer. • Load photo paper into the main input tray. Print the photo, Page setup. Different settings of printer.
<p>UNIT-III: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Getting Acquainted with Photoshop, • Basic Image Manipulation, Colour Basic Painting Tools, Brush Settings, Making Selections, Filling and stroking, Layers, Advanced Layers, • Text, Drawing, Using Channels and Masking, Manipulating images, Getting to know the work area, Using Adobe Bridge, • Basic Photo Corrections, Retouching and Repairing, Working with selections, • Layer Basics, Masks and channels, Correcting and enhancing digital photographs, • Topographic design, Vector drawing techniques, Advanced Layer techniques, • Vector Composting, Creating Links within an image, • Creating rollover web visuals, Animating GIF images for the web, Producing and printing consistent colour.
<p>UNIT-IV: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Getting Started with PageMaker, PageMaker Interface, • Creating a New Document, Managing Document Layer, Creating & Editing Text, Working with Edit Story, • Managing Text as an Object, Working with Text and Graphics, Using Graphics, • Applying Colours to Graphics, Framing Graphics, Cropping and masking Graphics, • Working with Layers, Working with Master pages, Working with Plug-ins, Using Text Wrap, Using Advanced Features, Creating a PDF Document in PageMaker, • Working with Data Merger, Using Scripts, Using Object Linking and Embedding Colour Separation Capabilities, Printing.
<p>Suggested Practical Assignments:</p>	<ol style="list-style-type: none"> 1. Network Printer Installation: <ul style="list-style-type: none"> • Install a network printer on a Windows computer. • Configure printer settings and test print a document. 2. File and Printer Sharing: <ul style="list-style-type: none"> • Set up file sharing between two computers on a peer-to-peer network.

	<ul style="list-style-type: none">• Enable printer sharing on a network. <ol style="list-style-type: none">3. Internet Browsing:<ul style="list-style-type: none">• Browse the Internet using three different browsers (e.g., Chrome, Firefox, Edge).• Compare the features and performance of each browser.4. Email Communication:<ul style="list-style-type: none">• Create an email account.• Send emails with attachments, set email priorities, and manage the address book.• Use email to send links for shared files and practice organizing emails into folders5. Basic Image Manipulation in Photoshop:<ul style="list-style-type: none">• Open an image and perform basic manipulations (crop, resize, rotate).• Use basic painting tools and brush settings to modify the image.6. Selections and Layers in Photoshop:<ul style="list-style-type: none">• Create and modify selections using different selection tools.• Work with layers: create, arrange, and apply basic transformations.7. Text and Drawing in Photoshop:<ul style="list-style-type: none">• Add and format text in an image.• Use drawing tools to create shapes and lines.8. Channels and Masking in Photoshop:<ul style="list-style-type: none">• Use channels and masks to isolate parts of an image and apply adjustments.9. Photo Corrections in Photoshop:<ul style="list-style-type: none">• Perform basic photo corrections (brightness, contrast, color balance).• Retouch and repair parts of an image using tools like the healing brush and clone stamp.10. Advanced Techniques in Photoshop:<ul style="list-style-type: none">• Use vector drawing techniques and advanced layer techniques (e.g., layer styles, blending modes).• Create web visuals, animate GIFs, and produce consistent color prints.11. Text and Graphics Management in Pagemaker:<ul style="list-style-type: none">• Create and edit text blocks using the Edit Story feature.• Import and manipulate graphics, apply colors, and use text wrapping.12. Layers and Master Pages in Pagemaker:<ul style="list-style-type: none">• Work with layers and master pages to manage document structure.• Use advanced features like plug-ins and scripts.13. PDF Creation and Data Merger in Pagemaker:
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	<ul style="list-style-type: none"> • Create a PDF document from a PageMaker file. • Use the Data Merger feature to merge external data into the document. <p>14. Object Linking and Embedding in Pagemaker:</p> <ul style="list-style-type: none"> • Use OLE to embed and link objects between applications. • Practice color separation and printing settings for final output.
Suggested Readings	<ol style="list-style-type: none"> 1. Bangia, R. Learning Desktop Publishing, Khanna Publishers, 2nd Edition, 2016 2. Behera, S. R. Smart DTO Course, B. K. Publications Pvt Ltd, 2nd Edition, 2019 3. C. M. Connally, The Complete reference PageMaker V.7, Osborne/McGraw-Hill, 2002 3. Faulkner, A. C. Chavez, Adobe Photoshop CC Classroom in a Book , First Edition , Pearson Education, 2018 4. Jain, S. and M. Geeta, Desktop Publishing Training Guide, BPB Publication, 2015 5. Mittal, A. and A. Rana, Mastering Pc Hardware and Networking, 1st Edition, Khanna Publishers, 2023 6. Singh, V. P. DTP Course Book, 4th Revised Edition, Asian Books
Requirements	<p>Name of the Tools and Equipment with Specification</p> <ul style="list-style-type: none"> • CPU: 32/64 Bit, 7th Generation or higher, i3 or latest processor, Speed: 3 GHz or Higher. • RAM:- 8 GB or higher, 1TB HDD/SDD, Wi-Fi Enabled. • Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB • Keyboard and Monitor (as available in the market). Or All in one PC (As per above configuration) Licensed Operating System and Antivirus compatible with trade related software • Wi-Fi Router With wireless connectivity • Broadband connection with min.2 mbps speed/Optical Fibre <p>Any other item as required</p>
Qualified Instructors	<ul style="list-style-type: none"> • Instructors with experience in Desktop Publishing and teaching. • Certifications or relevant qualifications in Desktop Publishing

Paper Title	: Desktop Publishing -III							
CODE	: VTC: 363.2							
Number of Credits	: 4							
Semester	:VI							
No. of Theory Hours Per Week	: One (1 hour)							
No. of Practical Hours per Week	: Three (3 Hours)							
Outline of the Paper:								
Type of Course	Units in the VTC	Hours	Credits	Total Marks	Distribution of Marks (as per OC-8)			
Desktop Publishing -III					In-Semester		End-Semester	
					Theory	Practical	Theory	Practical
	Unit-I Theory (25 Marks)	15	4	100	25			
Unit-II to IV Theory (75 Marks)	90				15		60	
Marks Distribution		: Internal Assessment: 40						
		: External Assessment: 60						
Course Objectives	<ol style="list-style-type: none"> 1. Introduction of Cloud storage and it types 2. Understanding and working with Corel Draw 3. Understanding different kinds of publishing contents and types of Printing Technology. 4. Understanding of Image Editing and Optimization 5. Understanding of Creating Effective Layouts. 							
Course Learning Outcome	<p>At the end of the course students are able to:</p> <ol style="list-style-type: none"> 1. explain the process of cloud computing concepts and ability to deploy and manage virtual servers and resources on major cloud platforms like AWS, Azure 2. create and manage storage resources like bucket or blob storage 3. identify the workspace, toolbars, and panels 4. make use of skills from Illustrator to CorelDRAW 5. utilise internet toolbar, setting up web pages, exporting files, and creating buttons with rollover effects. 							
Unit I: (Theory) 15 Hours	<ul style="list-style-type: none"> • Introduction to cloud computing.What are Cloud servers and types of cloud serve. • Create an instance on cloud on amazon/azure/google. Create bucket/ storage space on cloud (amazon / azure / google). • Install apache server & IIS server, configure apache server and IIS server • Perform Domain registration, c panel management. Perform Domain registration of any domain name • Configure domain name to hosting accounts. 							

	<ul style="list-style-type: none"> • Host your web pages.
<p>UNIT-II: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Getting started with Corel Draw, Introduction to Corel Draw, Features of Corel Draw, CorelDraw Interface, Tool Box, Moving from Adobe Illustrator to Corel Draw, Common Tasks, Drawing and Colouring, • Selecting Objects, Creating Basic Shapes, Reshaping Objects, Organizing objects, Applying colour fills and Outlines Mastering with Text, Text Tool Artistic and paragraph text, Formatting Text, Embedding Objects into text, Wrapping Text around Object, Linking Text to Objects, • Applying Effects, Power of Blends Distortion, Contour Effects, Envelopes, Lens effects, Transparency, Creating Depth Effects, Power Clips, • Working with Bitmap Commands, Working with Bitmaps, Editing Bitmaps, Applying effects on Bitmaps, Printing Corel Draw- Web resources, Internet Toolbar, Setting your webpage, Exporting files, Creating buttons with Rollover effects
<p>UNIT-III: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Requirement of publishing content Solve requirement related issues by contacting key people in Publishing, Pre-production, and Production teams. • Summaries the consequences of publishing incorrect versions of content. • Determine, if you have the correct versions of all content for publications. • Demonstrate methods of establishing publication requirements. • Perform recommended techniques of establishing requirements in Requirement of publishing content Categories content that requires publishing. • Classify all requirements of the publication content. Different kinds of publishing contents, Types of Printing technology. (Letterpress, Offset lithography, Screen printing, Gravure printing, Flexography printing) • Digital printing Technology Discuss issues, if any, concerning requirements. • Summaries the consequences of publishing incorrect versions of content. • Desktop Publishing Operator standard templates and formats
<p>UNIT-IV: (Practical) 30 Hours</p>	<ul style="list-style-type: none"> • Publishing contents in Bilingual software Use standard templates and tools while converting content into draft publications. • Practice escalating design-related issues to the supervisor. • Solve design-related issues by incorporating the requester's/user's feedback/inputs. • Design and format content as per established requirements. Modify designed and formatted content as per client's review. • Convert designed, formatted, and validated content, into draft

	<p>publication, after incorporating feedback from the Quality Assurance team (Prepress department)</p> <ul style="list-style-type: none"> • Demonstrate standard methods for publishing content. • Produce publication outputs in specific formats required by production teams. • Combine the latest publications to update the organisation's database. • Comply with the industrial standards while publishing content.
<p>Suggested Practical Assignments:</p>	<ol style="list-style-type: none"> 1. Use Coreldraw to create basic shapes (e.g., rectangles, circles), select objects, and apply color fills and outlines. 2. Create and reshape objects using tools such as shape, node, and interactive tools. Organize objects by aligning, grouping, and layering. 3. Use the Text Tool to create artistic and paragraph text, format the text, and embed objects into text. Wrap text around objects and link text to objects. 4. Apply effects such as blends, distortions, contours, envelopes, lens effects, and transparency to objects. 5. Import and edit bitmaps, apply effects to bitmaps, and use bitmap editing tools within Corel Draw. 6. Use depth effects and power clips to create intricate designs. Practice embedding objects within other objects. 7. Set up print settings, prepare documents for printing, and explore different output formats. 8. Create a basic LaTeX document using the article class. Include sections, subsections, and different text formatting (bold, italic, lists). Save and compile the document. 9. Create a document that includes various mathematical expressions, equations, and align environments. Include examples of fractions, integrals, summations, and matrices. 10. Create a LaTeX document that includes multiple figures and tables. Use the graphicx package to insert images and the tabular environment to create tables. Format the tables to include borders, captions, and labels. 11. Create a research paper layout with title page, abstract, sections, and references. Customize headers and footers, and format the document according to a specific citation style (e.g., APA or IEEE). Use BibTeX for managing references. 12. Design a presentation using the Beamer class. Include title slides, section slides, bullet points, and graphics. Apply different themes and color schemes to the presentation
<p>Suggested Readings</p>	<ol style="list-style-type: none"> 1. Bangia,R. Learning Desktop Publishing, Khanna Publishing 2. Behera,S. R. Smart DTP Course, BK 3. Jain, S. and M Geetha, Desktop Publishing, BPB Publications 4. Kumar L. S. and M Ilayaraja, Desktop publishing, Notion Press 5. Kumar L. S. and M. Ilayaraja, Desktop Publishing, 2019 6. Mishra, P. Cloud Computing with AWS: Everything You Need to Know to be an AWS Cloud Practitioner, 2023

	7. Singh, V. P “Simplified DTP Course Book, Asian Publishers 8. Singh, V. P. DTP Course Book, Asian Publishers
Requirements	<p>Name of the Tools and Equipment with Specification</p> <ul style="list-style-type: none"> • CPU: 32/64 Bit, 7th Generation or higher, i3 or latest processor, Speed: 3 GHz or Higher. RAM:- 8 GB or higher, 1TB HDD/SDD, Wi-Fi Enabled. Network Card: Integrated Gigabit Ethernet, with USB Mouse, USB Keyboard and Monitor (as available in the market). Or All in one PC (As per above configuration) Licensed Operating System and Antivirus compatible with trade related software • Wi-Fi Router With wireless connectivity • Broadband connection with min.2 mbps speed/Optical Fibre <p>Any other item as required</p>
Qualified Instructors	<ul style="list-style-type: none"> • Instructors with experience in Desktop Publishing and teaching. • Certifications or relevant qualifications in Desktop Publishing