



# **Eklavya University**

**SESSION**

**2023-24**

**D.C.A. II SEMESTER**

**SYLLABUS**

**OF**

**Computer Application And Information  
Technology Department**

**School of Basic and Applied Sciences**

# EKLAVYA UNIVERSITY, DAMOH (M.P.)

## Scheme of Examination DCA II Sem

*For batch admitted in Academic Session 2023-24*

### Subject wise distribution of marks and corresponding credits

S.No.	Subject Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Periods Per week			Total Credits
			Theory Slot			Practical Slot			L	T	P	
			End Sem.	Mid term Examination	Quiz/ Assignment/ Attendance	End Sem	Lab Work/ sessional					
1	DCAPL20S201	IT Trends	60	30	10	-	-	100	4			4
2	DCAPL20S202	Internet and E-Commerce	60	30	10	-	-	100	3	1		4
3	DCAPL20S203	DTP with Page Maker & Photoshop	60	30	10	-	-	100	4			4
4	DCAPL20S204	Computer Lab -2	-	-	-	30	20	50			4	4
<b>Total</b>			180	90	30	30	20	350	11	1	4	16

**Induction programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.**

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<b>Class</b>		<b>Diploma in Computer Applications (DCA)</b>	
<b>Semester/Year</b>		<b>SEMESTER — II</b>	
<b>Subject &amp; Subject Code</b>		<b>IT TRENDS - DCAPL20S201</b>	
<b>Max. Marks</b>		<b>60 (ETE) + 40 (IA) = 100</b>	
<b>Credit</b>		<b>Total Credits</b>	
<b>L</b>	<b>T</b>	<b>P</b>	<b>4</b>
<b>4</b>	<b>0</b>	<b>0</b>	
<b>Course Objectives:</b>			
1 The concepts of Set theory and Relation.			
2 The concepts of Functions and define the recursive functions.			
3 The concept of Laplace transforms.			
4 The concept of Inverse Laplace transforms.			
5 The concept of permutations and combinations.			
6 The concept of variable and also identify the mapping.			
<b>Course Outcome:</b>			
1 Apply the Set theory and Relation concepts.			
2 Apply the Functions and define the recursive functions.			
3 Apply Laplace transform to different applications			
4 Apply Inverse Laplace transform to different applications.			
5 Identify the permutations and combinations.			
6 Define variable and also identify the mapping.			
<b>Student Learning Outcomes (SLO):</b>			
1 The concept of various components.			
2 The concepts that underpin the disciplines of analog and digital electronic logic circuits.			
3 Various Number system and Boolean algebra.			
4 Design and implementation of combinational circuits.			
5 Design and implementation of .			
<b>Unit</b>	<b>Syllabus</b>		<b>Periods</b>
UNIT - I	Multimedia Definition and concept, need of Multimedia, areas of use, multimedia elements- Text, Images, Sound, Animation and Video, Multimedia Hardware and Software requirement. Making simple Multimedia with PowerPoint Application of multimedia in different industries- Education, Entertainment, Journalism etc., Future of Multimedia, Career in Multimedia Production.		8

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UNIT - II	Text as a component of Multimedia, Concepts of plain and formatted text, RTF and HTML texts, Object Linking and Embedding concept, Fonts- need and types, Importance of sound in Multimedia, Mono V/ S Stereo Sound, Effects in Sound, Analog V/ S Digital Sound, Overview Of Various Sound File Formats on PC WAV, MP3. Concept of MIDI, Software for sound editing and mixing.	8
UNIT - III	E-governance, e-democracy, Government efforts to encourage citizen participation, PPP model, E-governance websites and services- SAMADHAN online, CM Helpline, MP online services, mygov.in of government of India UIDI and Adhar, E-governance mobile apps like umang, Digital Locker, Digital Library, Introduction to cyber crime, types of attacks and crime - email fraud, phishing, spoofing, hacking, spyware, malware, spam mail, logic bombs, denial of service, identity theft.	8
UNIT - IV	Introduction to wireless LAN, Blue tooth, Wi-Fi, WiMax Mobile technology, 2G, 3G, 4G services, IMEI, SIM, IP Telephony, Soft phone, Voice mail, Ad-hoc and sensor networks, GIS, ISP Mobile Computing, Cellular System Cell, Mobile Switching office, Hands off, Base Station	8
UNIT - V	Artificial Intelligence and Expert system- Concepts of AI and Expert Systems, Merits and Demerits of Expert system, Application of Expert system and AI Cloud computing-Introduction, types, application, services, Google drive, Google Doc, Google form	8

**References Books : -**

- 1 Fundamentals of Information Technology By Alex Leon and Leon, Vikas Publications
- 2 Frontiers Of Electronic Commerce, By- Kalakota, Ravi; Stone, Tom, Whinston, Andrew B, Addison Wesley Publishing Co, ISBN 8178080575
- 3 E-Commerce An Indian Perspective (Second Edition) By Pt Joseph, S.J., Prentice-Hall of India
- 4 Multimedia: Making It Work (4th Edition) By Thyvaughan, Tata Mcgraw Hills
- 5 Multimedia in Action James E Shuman, Vikas Publishing House

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Unit	Syllabus	Periods
UNIT - I	Introduction to Internet - Internet Evolution, Word Wide Web (WWW), Advantages and Disadvantages, Internet Vs Intranet, the purpose and function of an Internet Service Provider (ISP), Connectivity - Dialup, Leased line, VSAT , URLs, Portals, Internet Services, Application, E-MAIL- Basics of Sending & Receiving, Free Email services, Protocols, FTP, DNS, TCP, UDP, HTTP, IP Telnet Concept. Internet chatting- Voice chat, Text chat, Web Servers, Space on Host Server for Website, Web Portals & Web publishing concepts, Domain name registration.	8
UNIT - II	Applications of Internet, Basic Operations using Internet Browser-Working with browsers, View History in Browser, Search Engines, Searching information on Wikipedia, Subscribing and reading news papers online, Typing text in the regional language- Google input tools, Using Google Maps, Working with Google Apps, Online Ticket Booking, Apply for PAN Card/Passport /Aadhar Card online, Pay electricity bill and service tax online, Booking gas refill online, Downloading eBooks, Create & Using Bookmarks, Using JustDial/ quikr.com/ getit.co.in/ sulekha.com to find online services, social sites, Client server architecture & characteristics, Telnet (Remote login concepts) & FTP its uses.	8
UNIT - III	HTML- Concepts of Hypertext, Versions of HTML, Elements of HTML, HTML editors, Tags and attributes, Syntax, Head & Body Sections, Building, HTML Documents. Inserting Texts, Images, List & its type, Hyperlinks, Backgrounds And Color Controls, Table Layout and Presentation, Use of Font Size & Attributes, List Types and Its Tags, Use of Frames and Forms in, Web Pages HTML, Form and frame Design tools.	8
UNIT - IV	JavaScript Overview, syntax & conventions. Variables, Expressions, Branching & Looping statements, Functions, Arrays Objects, Events & Document Object Model-on Click, on Mouse Over, on Submit, on Focus, on Change, on Blur, on Load, on Unload Alerts, Prompts & Confirms.	8
UNIT - V	Introduction to E-Commerce, Electronic Commerce Framework, Evolution of, E-commerce, Advantages and Disadvantage of, E-commerce. Introduction, E-organization, Electronic Payment Systems, Electronic Cash, Smart Cards and Credit Card Based, Risks, Online Banking, E-Banking, E-Wallet, E shopping, E-Marketing: The scope of E-Marketing, M-commerce- introduction, Potential Growth and Future, Mobile banking, Paytm, Bhim, UPI app etc.	8

#### References Books:

- 1 Level Module - M 1.2 - Internet & Web Page Designing By V.K.Jain – Bpb Publications.
- 2 E-Commerce An Indian Perspective (Second Edition) - By P. T. Joseph, S.J.Prentice-Hall Of India
- 3 Internet For Everyone - Alexis Leon And Mathews Leon, Vikas Publishing House Pvt. Ltd., New Delhi
- 4 Internet For Dummies - Pustak Mahal, New Delhi
- 5 Introduction to Javascript Available at - [www.mcu.ac.in/Javascriptguide.pdf](http://www.mcu.ac.in/Javascriptguide.pdf)

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<b>Class</b>		Diploma in Computer Applications (DCA)	
<b>Semester/Year</b>		SEMESTER — II	
<b>Subject &amp; Subject Code</b>		DTP WITH PAGEMAKER & PHOTOSHOP - DCAPL20S203	
<b>Max. Marks</b>		60 (ETE) + 40 (IA) = 100	
<b>Credit</b>		<b>Total Credits</b>	
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**Course Objectives:**

1. Study on Context of Desktop Publishing.
2. Importance of Desktop Publishing.
3. Study on creation of title/cover page, advertisement.

**Course Outcome:**

1. Work with the Photoshop workspace
2. Navigate images
3. Resize and crop images
4. Make and work with selections
5. Create new layers and perform other basic layer functions
6. Transform images
7. Make various colour corrections using adjustment layers
8. Use various retouching and repairing techniques to correct images

**Student Learning Outcomes (SLO):**

1. Use basic selection tools and edge refinement to isolate and edit parts of an image.
2. Manipulate layers through ordering, positioning, scaling, rotation, and adjustments.
3. Create composite images that demonstrate advanced selection and layering techniques.
4. Prepare images for Web and print output with appropriate sizing and resolution.
5. Apply painted masks, selection-based masks, gradient masks, and blend modes to create sophisticated image effects.
6. Create adjustment layers for editable, non-destructive changes to image coloration and exposure

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Unit	Syllabus	Periods
UNIT - I	Introduction to Desk Top Publishing, Introduction( to Desktop Publishing (DTP), History, Definition, Need and Area of Application, Difference between a word processor and Publication Software, Use and importance of DTP in Publication & Newspaper Printing, Various DTP Software Introduction to Offset Printing Technology, Printers. Formatting of a text: Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc. Types of Printing : Lithography, Flexography, Gravure, Screen Printing, Offset Printing. Working of offset Printing, Terms used in Offset Printing: Bleed, CMYK, Impressions, Importance of D.T.P in Publication, Advantage of D.T.P in Publication. Laser printers - Use, Types, Advantage of laser printer in publication.	8
UNIT - II	Adobe Page Maker - Introduction to Page Maker, Aldus & Adobe Page Maker, Previous and current versions of Page Maker, Page Maker as a DTP Software. Attribute settings : Tools, Styles, Menus, Alignments, Grids, Guides etc., Keyboard shortcuts, Page Layouts- Margins and Page Orientations with various page sizes, Text Editing and Manipulation, Filters, Import and Export options, Placing of Text and Images, Auto flow and Story Editor, Different Layout views, Tab setting, Columns & Gutters, Use of Styles, Palettes & Colors, Find Option & Document Setup.	8
UNIT - III	Adobe Page Maker- Page and document setup, working with rulers, setting the unit measurement, Bullets, Column Balancing, Breaks, Text Wrapping, Widows & Orphan lines, Revert Command and its use, Using Drop Caps and various style formats, Editing of Graphics and Frames, OLE & Embedding, Plug-ins, Mathematic Equation, Table Editor and it use, Master Pages, Headers & Footers, Frame Options, Print Setup Options, Managing and Printing Publications - Tiles, multiple copies etc. Use of Page Maker in News paper and Magazines.	8
UNIT - IV	Introduction to Adobe Photoshop, Photoshop Documents, Various Graphic Files and. Extensions- JPG, GIF, PNG, TIF, BMP, PSD, CDR, SVG etc. Graphic Files : Vector Image and Raster Images. Definition, Features, Area of application etc., Advantages and Disadvantages Vector & Raster Graphics, Bitmap Graphics, Pixels, Application Programs to work on Vector Graphics and Raster Graphics, Various Color Modes.. Models: HSB, RGB,CMYK,Bitmap,Grayscale,Duotone. Image: Image Size and Resolution, Changing Image Size and Resolution, Getting Image from Input Devices, Creating New image in Photoshop, Using File Browser, Opening and Importing Selecting Image, Adjusting Pixel, Snap command, Saving and Loading Selection, Deleting Selection.	8
UNIT - V	Photoshop - Introduction PSD files. Screen and Work Area Interfaces: Menu Bar, Option Bar, Palette, Active Image Area, Tool Box List etc., Opening a File, Saving a File, Closing a File, Tool: Icons, Name and usage of Each tool, Setting History Option, Photoshop Layers & Palettes: Use of Layers, Why Use Layers, Using layer palette, Creating Layers and Layer Sets, Background, layer. Working with layered Image: Layer and Layer sets, Selecting Layers, Displaying Content of a Layer, Duplicating Layers, Changing Order of Layers, Linking and Aligning Layers, Renaming, Deleting Layer, Color Coding, Rasterizing Layer, Setting Opacity and Blending, Layer Effect and Style, Applying Preset Style, Creating Custom Style, Masking Layer Filters: Using Filter Gallery, Filter Gallery Dialogue box, Applying and Blending Filters, Choose various Filter Effects.	8

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**References Books:**

- 1 Adobe PageMaker 7.0 Classroom in a Book, Publisher Adobe
- 2 The Complete Reference Getting started with Page Maker, McGraw-Hill
- 3 Photoshop CS6 All-in--One For Dummies by Barbara Obermeier, John Wiley & Sons
- 4 Photoshop 6.0 by Sharma, Shusmit

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<b>Class</b>			<b>Diploma in Computer Applications (DCA)</b>
<b>Semester/Year</b>			<b>SEMESTER — II</b>
<b>Subject &amp; Subject Code</b>			<b>Computer Lab - DCAPL20S204</b>
<b>Max. Marks</b>			<b>30 (ETA) + 20 (IA) = 50</b>
<b>Credit</b>		<b>Total Credits</b>	
<b>L</b>	<b>T</b>	<b>P</b>	<b>4</b>
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**PAGEMAKER**

1. Create a Greeting Card for New Year.
2. Create a Visiting Card.
3. Create your Resume.
4. Create an advertisement for job in well-known firm.
5. Create a Newspaper Report.
6. Create a document by importing Graphic Image from Clip Art.
7. Create a Wedding Card.
8. Type a document using Story Editor.
9. Input a text from Word Document into a PageMaker document.
10. Create a document on Importance of Text Wrap, applying proper font size,

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