श्री Davara University

Established under Chhattisgarh Private Universities (Establishment and Operation) Act, 2005

DCA

SEMESTER-I

Programme Curriculum

श्री Davara University

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SEMESTER I

S.NO	COURSE CODE	COURSE TITLE	TEACHING HOURS PER WEEK				EXAMINATION SCHEME				
		THEORY	L	T	P	C	THEORY		PRACTICAL		TOTAL MARKS
							EX	IN	EX	IN	
1.	DCA101	Fundamental of IT and Ms office	3	1	-	4	70	30	-	-	100
2.	DCA102	Introduction of Computer Network and Web Design	3	1	-	4	70	30	-	-	100
3.	DCA103	Programming in C	3	1	-	4	70	30	-	-	100
4.	DCA104	Multimedia and Tools	3	1	-	4	70	30	-	-	100
PRACTICAL											
5.	DCA105	Fundamental of IT Lab	-	-	2	1	-	-	35	15	50
6.	DCA106	Programming in C lab	-	-	2	1	-	-	35	15	50
7.	DCA107	Multimedia and Tools Lab	-	-	2	1	-	-	35	15	50
8.	DCA108	Web Design Lab	-	-	2	1	-	-	35	15	50
Total Credit						20	Total Marks				600

L-Lecture
P-Practical
T- Tutorial
C- Credit

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PART-A: Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA101**		
Course Title	**FUNDAMENTAL OF IT AND MS-OFFICE**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand computer types, generation and etc. • Understand working of MS word and functionality of word. • Understand working of MS excel and functionality of excel. • Understand working of MS access and functionality of access. • Understand working of MS PowerPoint and functionality of PowerPoint.		
Credit Value	**4 Credits**	**Credit-15 Hours - Learning & Observation**	
Total Marks	**Max. Marks:100**	**Min marks -40**	

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	Brief history of development of computers, Computer system concepts, Computer system characteristics, Capabilities and limitations, Types of computers Generations of computers, main characteristics. Basic Components of a computer system - Control unit, ALU, Input/output functions and characteristics, memory – RAM, ROM, EPROM, PROM and other types of memory, Number System Software and its Need, Types of Software - System software, Application software, System Software - Operating System, Utility Program, Programming languages, Assemblers, Compilers and Interpreter.	15
2	Input/output & Storage Units-:Keyboard, Mouse, Trackball, Joystick, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code Reader, Voice Recognition, Light pen, Touch Screen, Printers & its types - Daisywheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter, Sound Card and Speakers, Storage fundamentals- Primary Vs Secondary Data Storage and Retrieval methods - Sequential, Direct and Index Sequential, Various Storage Devices - Magnetic Tape, Magnetic Disks, Cartridge Tape, Hard Disk Drives, Floppy Disks(Winchester Disk), Optical Disks, CD, CD-R, CD-RW, Zip Drive, flash Physical structure of floppy & hard disk.	15
3	Word: Creating, Editing, & Previewing Documents, Formatting, Advanced Features, Using Thesaurus, Mail Merge, Table & Charts, Handling Graphics, Converting Word Documents into other Formats. Excel: Worksheet Basics, Creating, Opening, & Moving in Worksheet, Working with	15

	Formula & Cell referencing, Absolute & Relative addressing, Working with Ranges, Formatting of Worksheet, Graphs & Charts, Database, Function, and Macros	
4	Power Point: Creating a presentation, Modifying visual Elements, Adding objects, Applying Transitions, animations and linking, preparing handouts, presenting a slide show. Creating presentation, working with slides, different types of slides, setting page layout, selecting background and applying design, adding graphics to slide, adding sound and movie, working with table, creating chart and graph, playing a slide show, slide transition, advancing slides, setting time, rehearsing timing, animating slide, animating objects, running the show from windows.	**15**
Keywords	Computer, types, generation, word, excel, PowerPoint.	

Name and Signature of Convener & Members of CBS

PART-C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

- Anurag Seetha, "Introduction to Computers and Information Technology", Ram Prasad & Sons, Bhopal.
- S. K. Basandra, "Computers Today", Galgotia Publications.
- Chetan Shrivastav, "Fundamental of IT"
- P. K. Sinha, "Fundamental of Computers"
- System Analysis and Design-Elias M. Awad.
- System Analysis and Design –Alan Dennis & Barbara Haley Wixo
- Introduction to Data communication & Networking- Behrouz & Forouzan
- Computer Networking-Andres & Tanenbaum

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 100 marks
Continuous Internal Assessment (CIA): 30 Marks.
End Semester Exam (ESE): 70 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

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PART-A: Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA102**		
Course Title	**Introduction to Computer Networks and Web Design**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand computer network and functionalities. • Understand website and WebPages and its making process. • Understand website terminology.		
Credit Value	**4 Credits**	**Credit-15 Hours - Learning & Observation**	
Total Marks	**Max. Marks:100**	**Min marks -40**	

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	Use of communication and IT , Communication Process, Communication types- Simplex, Half Duplex, Full Duplex, Communication Protocols, Communication Channels - Twisted, Coaxial, Fiber Optic, Serial and Parallel Communication, Modem – Working and characteristics, Types of network Connections - Dialup, Leased Lines, ISDN, DSL, RF, Broad band ,Types of Network - LAN, WAN, MAN ,Internet, VPN etc., Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies, Components of LAN -Media, NIC, NOS, Bridges, HUB, Routers, Repeater and Gateways. Internet-Evolution, World Wide Web Internet Services and E – Commerce	15
2	WebPages; Hyper Text Transfer Protocol (HTTP); File Transfer Protocol (FTP) Domain Names; URL, Website, Web browser, Web Servers; Basic Tags of HTML: HTML, HEAD, TITLE, BODY, Heading tag(H1 toH6) and attributes, FONT tag and Attributes, P, BR, Comment in HTML (<! >), Formatting Text (B, I, U, EM, BLOCKQUOTE, PRE FORMATTED, SUB, SUP, STRIKE), Ordered List- OL Unordered List, ADDRESS Tag; Creating Links: Link to other HTML documents or data objects, Links to other places in the same HTML documents, Links to places in other HTML documents; Anchor Tag <A HREF> and <A NAME>, Inserting Images Image Link, Horizontal Rules <HR ALIGN, WIDTH, SIZE, NO SHADE>;	15
3	Tables: Creating Tables, Border, TH, TR, TD, CELL SPACING, CELL PADDING, WIDTH, COLSPAN, CAPTION, ALIGN, CENTER; Frames: Percentage dimensions, Relative dimensions, Frame – Src, Frame border, height and width, Creating two or more rows Frames <FRAMESET ROWS >, Creating two or more Page 3 Columns Frames <FRAMESET COLS >, <FRAME NAME SRC MARGIN	15

	HEIGHT MARGIN WIDTH SCROLLING AUTO NO RESIZE>,<NOFRAMES>, </NOFRAMES>; Forms: Definition, Form Tags: FORM, <SELECTNAME, SIZE, MULTIPLE/SINGLE><OPTION></SELECT>, <TEXT AREA NAME ROWS COLS>, </TEXTAREA>, METHOD, CHECKBOX, HIDDEN, IMAGE, RADIO, RESET, SUBMIT, INPUT <VALUE, SRC, CHECKED, SIZE, MAXLENGTH, ALIGN>	
4	CSS, the Benefits of CSS, How CSS Works, Rule Syntax, Adding Styles to a Document, Key Concepts, Specifying Values, Browser Support, Type (Element) Selector, Font Family, Font Size, Other Font Settings ,Text Transformation (Capitalization) Text Decoration, Line Height, Text Alignment Properties, Text Spacing, Text Direction, Margins, Borders, Padding, Foreground Color, Background Color, Background Images, working with tables	**15**
Keywords	Computer network, web pages, website, network, etc.	

Name and Signature of Convener & Members of CBS

PART-C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

- HTML & XHTML: The Complete Reference Guide, 5thEdition
- Web Design in a Nutshell, Second Edition by Jennifer Niederst Robbins, Second Edition September 2001
- Learning Web Design: HTML, Graphics, and Animation
- A Beginner's Guide to HTML, Graphics, and Beyond by Jennifer Niederst Robbins
- Introduction to HTML-Kamlesh N agrawal
- Data communication and networking-Ferozon
- Networking Concepts-Tanunbaum

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 100 marks
Continuous Internal Assessment (CIA): 30 Marks.
End Semester Exam (ESE): 70 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

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PART-A: Introduction

Program: Diploma in Computer Application (Diploma)	Semester-I	Session: 2025-26

Course Code	**DCA103**	
Course Title	**PROGRAMMING IN C**	
Prerequisite	As per program	
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand programming language and its functionalities. • Understand operators and various conditions and looping statements. • Understand compiler and linker loader. • Understand approaches of programming language.	
Credit Value	**4 Credits**	**Credit-15 Hours - Learning & Observation**
Total Marks	**Max. Marks:100**	**Min marks -40**

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	**Introduction** Character set, Identifiers and Keywords, Variables, Displaying variables, Reading Variables, Qualifiers, Value initialized variables, Constants, Constant Qualifier, Operators and Expressions, Operator Precedence and Associativity, Basic input output: Single Character I/O, Types of Characters in format string, Scanf with specifier.	15
2	Control Structure: If - statement, If -else statement, Multi decision, Compound Statement, Loops: For-loop, While-loop, Do-While loop, Break statement, Switch statement, Continue statement, Go to statement.	15
3	**Functions:** Function main, Functions accepting more than one parameter, User defined and library functions, Concept associatively with functions, function parameter, Return value, recursion comparisons of Iteration and recursion variable length argument list. **Arrays:** Scope and Extent, Multidimensional Arrays, Array of Strings, Function in String, passing arrays to functions, accessing array inside functions.	15
4	Pointers: Definition and use of pointer, address operator, pointer variable, referencing pointer, void pointers, pointer arithmetic, pointer to pointer, pointer and arrays, pointer and functions, pointers and two dimensional arrays, array of pointers, pointers constants, pointer and strings.	15
Keywords	C-Language, functions, operator, strings, pointer, structure, union, etc.	

Name and Signature of Convener & Members of CBS

PART-C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

- Let us C- Yashwant Kanetkar.
- Programming in C-E. Balaguruswamy

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 100 marks
Continuous Internal Assessment (CIA): 30 Marks.
End Semester Exam (ESE): 70 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

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PART-A: Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA 104**		
Course Title	**Multimedia and Tools**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand concept of multimedia and functionalities of multimedia. • Understand and learn working with audios. • Understand and learn working with texts. • Understand and learn working with videos. • Understand and learn working with images.		
Credit Value	**4 Credits**	**Credit-15 Hours - Learning & Observation**	
Total Marks	**Max. Marks:100**	**Min marks -40**	

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	Introduction to Multimedia Components of multimedia, Web and Internet multimedia applications, Transition from conventional media to digital media, Text, Audio, Video, Image, Animation, uses of multimedia, needs of multimedia.	**15**
2	Computer Fonts and Hypertext, Usage o f text in Multimedia, Families and faces of fonts, outline fonts, bitmap font's International character sets and hypertext, Digital fonts techniques, text editing software, text editors, colours in fonts, size of font.	**15**
3	Audio fundamentals and representations. what is the audio, types of audio, Digitization of sound, frequency and bandwidth, data rate, audio file format, Sound synthesis, MIDI, wavetable, Compression and transmission of audio on Internet, Adding sound to your multimedia project, Audio software and hardware.	**15**
4	Image fundamentals and representations, Colour Science, Colour Models, Colour palettes, 2D Graphics, Image Compression and File Formats: GIF, JPEG, JPEG 2000, PNG, TIFF, EXIF, PS, PDF, Basic Image Processing [Can Use Photoshop], Use of image editing software, Retouching.	**15**
Keywords	Multimedia, Hypertext, Audio, Sound synthesis, Image editing.	

Name and Signature of Convener & Members of CBS

PART-C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

- Multimedia technologies-Dr. D.A. Godse

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 100 marks
Continuous Internal Assessment (CIA): 30 Marks.
End Semester Exam (ESE): 70 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

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PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA105**		
Course Title	**FUNDAMENTAL OF IT and MS Office Lab**		
Course Type	**Practical**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand computer types, generation and etc. • Understand working of MS word and functionality of word. • Understand working of MS excel and functionality of excel. • Understand working of MS access and functionality of access. • Understand working of MS publisher and functionality of publisher. • Understand working of MS PowerPoint and functionality of PowerPoint.		
Credit Value	**1 Credits**	**Credit-30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	MS-WORD 1. Text Manipulations 2. Usage of Numbering, Bullets, Tools and Headers 3. Usage of Spell Check and Find and Replace 4. Text Formatting 5. Picture Insertion and Alignment 6. Creation of Documents Using Templates` 7. Creation of Templates 8. Mail Merge Concept 9. Copying Text and Picture from Excel 10. Creation of Tables, Formatting Tables 11. Splitting the Screen 12. Opening Multiple Document, Inserting Symbols in Documents MS-EXCEL 1. Creation of Worksheet and Entering Information 2. Aligning, Editing Data in Cell	**30**

	3. Excel Function (Date, Time, Statistical, Mathematical, Financial Functions) 4. Changing of Column Width and Row Height(Column and Range of Column) 5. Moving, copying, Inserting and Deleting Rows and Columns 6. Formatting Numbers and Other Numeric Formats 7. Drawing Borders around Cells 8. Creation of Charts Raising Moving 9. Changing Chart Type 10. Controlling the Appearance of a Chart MS-POWERPOINT Working with Slides 1. Creating, saving, closing presentation 2. Adding Headers and footers 3. Changing slide layout 4. Working fonts and bullets 5. Inserting Clipart: working with clipart, 6. Applying Transition and animation effects 7. Run and Slide Show Note: Concerned teacher can add additional experiment as per requirement	
Keywords	Text, audio, video, image	

Name and Signature of Convener & Members of CBoS

PART-C: Learning Resources

Text Books, Reference Books and Others

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50 marks
Continuous Internal Assessment (CIA): 15 Marks.
End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks:-15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment A. Performed the task based on lab work- 20 marks B. Spotting based on tools & technology(written)-10marks C. Viva-voce(based on principle/technology)- 5 marks**	

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PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA106**		
Course Title	**PROGRAMMING IN C LAB**		
Course Type	**Practical**		
Prerequisite	**As per program**		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand programming language and its functionalities. • Understand operators and various conditions and looping statements. • Understand compiler and linker loader. • Understand approaches of programming language.		
Credit Value	**1Credits**	**Credit-30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. Setting–up environment for C programming. 2. Compiler Installations (command line, IDEs). 3. Using IDEs. 4. Displaying various messages onscreen. 5. Programs with simple arithmetic. 6. Programs to display criteria based results. 7. Programs to take input from user. 8. Program to take input based on some criteria. 9. Programs on unit conversions. 10. Programs on iterative operation. 11. Programs to create a numbers series. 12. Programs to check special. 13. Characteristic numbers.	**30**

	14. Programs to create specific patterns. 15. Programs for creating functions. 16. Programs on recursion. 17. Programs on C preprocessor. 18. Programs on recursion. 19. Programs to use various storage classes. 20. Programs on data type handling and conversion. 21. Programs to introduce Pointers. 22. Programs on handling Array. 23. Programs on matrix calculations. Note: Concerned teacher can add additional experiment as per requirement	
Keywords		

Name and Signature of Convener & Members of CBoS

PART-C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

- Let us C- Yashwant Kanetkar.
- Programming in C-E. Balaguruswamy

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 marks
Continuous Internal Assessment (CIA): 15 Marks.
End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks:-15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment A. Performed the task based on lab work- 20 marks B. Spotting based on tools & technology(written)-10marks C. Viva-voce(based on principle/technology)- 5 marks**	

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PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2025-26**
Course Code	**DCA107**		
Course Title	**Multimedia and tools Lab**		
Course Type	**Practical**		
Prerequisite	**As per program**		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand concept of multimedia and functionalities of multimedia. • Understand and learn working with audios. • Understand and learn working with texts. • Understand and learn working with videos. • Understand and learn working with images.		
Credit Value	**1Credits**	**Credit-30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. Use text editor software 2. Use audio editor software 3. Use video editor software 4. Use image editor software 5. Use animation software Note: Concerned teacher can add additional experiment as per requirement	**30**
Keywords	Text, audio, video, image	

Name and Signature of Convener & Members of CBoS

PART-C: Learning Resources

Text Books, Reference Books and Others

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 marks

Continuous Internal Assessment (CIA): 15 Marks.

End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks:-15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered**

		against 15 marks.
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment** **A. Performed the task based on lab work- 20 marks** **B. Spotting based on tools & technology(written)-10marks** **C. Viva-voce(based on principle/technology)- 5 marks**	
Name and Signature of Convener & Members of CBoS.		

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PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**SEMESTER-I**	**Session: 2025-26**
Course Code	**DCA 108**		
Course Title	**WEB DESIGN LAB**		
Course Type	**Practical**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand website and WebPages and its making process. • Understand website terminology.		
Credit Value	**2 Credits**	**Credit-30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. Introduction to basic HTML elements. 2. Design a timetable and display it in a tabular format. 3. Create a stylesheet to set formatting for text tags and embed it. 4. Create your profile page including educational details, hobbies, achievements, and ideals. 5. Design a web page and embed various multimedia features. 6. Write an HTML and JavaScript program to determine whether a given year is a leap year in the Gregorian calendar. 7. Write an HTML and JavaScript program to convert temperatures to and from Celsius and Fahrenheit. 8. Create a static web page using HTML table tags. 9. Create a static web page that defines all HTML text formatting tags in a	**30**

	tabular format. 10. Create a web page to include images using the HTML <img> tag. 11. Create an employee registration web page using HTML form objects. 12. Create a web page using HTML list tags. Note: Concerned teacher can add additional experiment as per requirement.	

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50 marks
Continuous Internal Assessment (CIA): 15 Marks.
End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks:-15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment** **A. Performed the task based on lab work- 20 marks** **B. Spotting based on tools & technology(written)-10marks** **C. Viva-voce(based on principle/technology)- 5 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PROGRAMME CURRICULUM
FOR
DIPLOMA IN COMPUTER APPLICATION
SEMESTER-II

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

Semester-II

S.NO	COURSE CODE	COURSE TITLE	TEACHING HOURS PER WEEK				EXAMINATION SCHEME				
THEORY			L	T	P	C	THEORY		PRACTICAL		TOTAL MARKS
							EX	IN	EX	IN	
1.	DCA201	AI Prompt Engineering	4	-	-	4	70	30	-	-	100
2.	DCA202	Introduction To Tally	4	-	-	4	70	30	-	-	100
3.	DCA203	Database Management System	4	-	-	4	70	30	-	-	100
Practical											
5.	DCA205	Project	0	2	4	4	-	-	70	30	100
6.	DCA206	Tally Lab	0	0	4	2	-	-	35	15	50
7.	DCA207	Database Management System Lab	0	0	4	2	-	-	35	15	50
Total Contact hours Per Week:22		Total credit:				20	Total mark				500

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A: Introduction

Program: Diploma in Computer Application (Diploma)	Semester-II	Session: 2025-2026

Course Code	**DCA201**	
Course Title	**AI prompt engineering**	
Prerequisite	As per program	
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • To take a learner from "AI-curious" to "AI-competent. • To understand that AI is a product of decades of logic, mathematics, and iterative engineering. • To master the primary interface of the AI era: natural language. Students will learn that the quality of the output is a direct reflection of the clarity of the input. • Practical application across different media. • To develop a critical lens. • The Anatomy of a Prompt: Learning the RTF Framework (Role, Task, and Format).	
Credit Value	**4 Credits**	**1 Credit = 15 Hours - Learning & Observation**
Total Marks	**Max. Marks:100**	**Min marks -40**

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	Introduction: overview of artificial intelligence (AI), Foundation of AI, Areas and application of AI in various Domains, AI in India, Impact and examples of AI, Future of AI.	15
2	Advanced AI: basic concept of machine learning, deep learning, computer vision, natural language processing, speech recognition, generative AI application.	15
3	AI Tools: conversational AI: ALEXA, CORTANA, SIRI, etc., AI tools for content generation, image creation, presentation, video editing etc.	15
4	Application of AI: agriculture, healthcare, environment, teaching, learning, ecommerce, industry, research etc.	15

PART-C: Learning Resources

Books Recommended:

- "The Fourth Industrial Revolution & 100 Years of AI" by (Dr. Alok Aggarwal).
- "Prompt Engineering: The Art of Asking" by (Yaswanth Sai Palaghat).
- The Art of Prompt Engineering" by (Nathan Hunter).
- "The Co-Intelligence Revolution" by (Venkat Ramaswamy).

Reference Recommended:

- "Prompt Engineering: Hands-on guide to prompt engineering for AI interactions" by Eric C. Richardson.
- "Prompt Engineering for Beginners" by Gaurav Aroraa, Geetu Garg, and Kapila Arora.

PART -D: Assessment and Evaluation

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

Suggested Continuous Evaluation Methods: Maximum Marks: 100 marks Continuous Internal Assessment (CIA): 30 Marks. End Semester Exam (ESE): 70 marks		
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A: Introduction

Program: Diploma in Computer Application (Diploma)	Semester-II	Session: 2024-2025

Course Code	**DCA202**	
Course Title	**Introduction to Tally**	
Prerequisite	As per program	
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • To able understand tally and its factions. • Practice data handing in tally. • Understand about bank transaction and Tally as software. • To understand GST calculation and advanced accounting.	
Credit Value	**4 Credits**	**1 Credit = 15 Hours - Learning & Observation**
Total Marks	**Max. Marks:100**	**Min marks -40**

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	**Accounting Basics:** Introduction to accounting principles - Journal entries, ledgers, trial balance Final accounts, Tally Interface and Navigation: Understanding the user interface, Data entry and modification, Masters Creation (company, accounts, ledgers, and group inventory).	15
2	**Transactions and Vouchers**: Recording purchases, sales, receipts, payments Creating vouchers (sales, purchase, contra) - Bank reconciliation, Transaction other than purchase sales, Tally as software and banking. Formats. Bill-wise -wise details, cost accounting and interest calculation.	15
3	**Reports and Analysis:** Generating basic reports (profit & loss, balance sheet, cash flow) - Exporting reports to other GST and Taxation: Understanding GST basis-Creating GST invoices and filing returns. Inventory Management: Basic stock management (adding, deleting, modifying items) Stock valuation methods.	15
4	**Advance Accounting:** Bill Wise Details, Currency, Interest Calculation, Job Work, manufacturing, Inventory management, Tally Security, GST. Tally Prime: TDS (Other Than Salary) theory, TDS Deduction, Challan etc. Practical Using Tally, Reports etc. Payroll: Legal terms, PF, ESI, TDS, etc. Setup with Tally-Process, Masters, Salary, Accounting Reports	15

PART-C: Learning Resources

Books Recommended:

1. 7. Frontiers of Electronic Commerce: Ravi Kalakota, Andrew B. Whinston
2. 8. Tally Essential: Tally Education Pvt. Ltd.
3. 9. Learn Tally Prime With GST: Gaurav Agrawal
4. 10. Mastering Tally PRIME Training. Certification & Job

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 100 marks

Continuous Internal Assessment (CIA): 30 Marks. End Semester Exam (ESE): 70 marks		
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A: Introduction

Program: Diploma in Computer Application (Diploma)	Semester-II	Session: 2024-2025

Course Code	**DCA203**	
Course Title	**DATA BASE MANAGEMENT SYSTEM**	
Prerequisite	As per program	
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand concept DBMS and its functionalities. • Understand relationship between tables. • Understand various models of DBMS. • Understand various languages.	
Credit Value	**4 Credits**	**1 Credit = 15 Hours - Learning & Observation**
Total Marks	**Max. Marks:100**	**Min marks -40**

PART -B: Content of the Course

Total No. of Teaching-Learning Periods (01 Hr. per period)-60 Periods (60 Hours) No. of Topics (Course contents)

Unit	Topics (Course Content)	No. of Period
1	**Introduction To DBMS** Data, Information and knowledge, concept of DBMS, Advantages of DBMS, 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	15
2	**E-R Model** Entity - Relationship model as a tool for conceptual design-entities, attributes and relationships. ER diagrams; Concept of keys; Case studies of ER modeling Generalization; specialization and aggregation.	15
3	**Relational Model:** Structure to Relational Database, Relational Algebra, and Extended Relational Algebra Operation, Simple and complex queries using relational algebra, The Domain Relational Calculus, Tuple relational calculus.	15
4	**Relational Database Design:** Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization: 1NF, 2NF, BCNF, 3NF, 4NF, 5NF. Structured Query Language: DDL and DML: Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in a Table, WHERE Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries.	15

PART-C: Learning Resources

Books Recommended:

- "Database System Concepts", Sudarshan, McGraw Hill.
- "Introduction to Database Management Systems" (2006 ISRD Group) Tata McGraw Hill.
- "An Introduction to Database System", C.J. Date.
- Introduction to Relational Database and SQL programming", Allen, Tata McGraw Hill.
- "SQL", Scott Urman.

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

Maximum Marks: 100 marks Continuous Internal Assessment (CIA): 30 Marks. End Semester Exam (ESE): 70 marks		
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:20 & 20 Assignment /seminar-10 Total marks: -30**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 30 marks.**
End Semester Exam (ESE):	**Two section- A&B Section A: Q1. Objective-10 marks: Q2. Short answer type-5x4=20 marks Section B: Descriptive answer type qts, 1 out of 2 from each unit-4x10=40 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-I**	**Session: 2024-25**
Course Code	**DCA204**		
Course Title	**AI prompt engineering**		
Course Type	**Practical**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able:** • Test if it can simplify jargon and use structured formatting (tables). • Practice Negative Prompting ("Do not use...") and real-time web searching. • Practice Data Transformation and see how Copilot handles code generation. • Learn to use Visual Inputs to trigger creative problem-solving. • Identifying bias and handling multiple perspectives.		
Credit Value	**1 Credits**	**1 Credit = 30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. You need to write an essay but want to avoid "AI-sounding" generic text. (Copilot) a. You are struggling to understand a complex topic for an exam. b. You have a specific problem to solve and want to understand the logic, not just get the answer. c. You have a long list of information and need it organized for a presentation. d. You need to write a formal email for an internship. 2. Analyze a complex diagram or photo of a handwritten math problem. (Gemini). a. Generate unique ideas for a college fest or a business project. b. Teach how to write prompts by critiquing them. c. Study how different cultures view the same event. d. Prepare for a scholarship or internship interview. e. See a complex chart or a photo of notes. Use the upload feature.	**30**

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

Maximum Marks: 50 marks Continuous Internal Assessment (CIA): 15 Marks. End Semester Exam (ESE): 35 marks		
Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks:-15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment A. Performed the task based on lab work- 20 marks B. Spotting based on tools & technology(written)-10marks C. Viva-voce(based on principle/technology)- 5 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A:Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-II**	**Session: 2024-25**
Course Code	**DCA205**		
Course Title	**DATABASE MANAGEMENT SYSTEM LAB**		
Course Type	**Practical**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** • Understand concept DBMS and its functionalities. • Understand relationship between tables. • Understand various models of DBMS. • Understand various languages.		
Credit Value	**1 Credits**	**1 Credit = 30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. Using the following database, Colleges (cname, city, address, phone, afdate) Staffs (sid, sname, saddress, contacts) Staff Joins (sid, cname, dept, DOJ, post, salary) Teachings (sid, class, paperid, fsession, tsession) Subjects (paperid, subject, paperno, paper_name) 2. Write SQL statements for the following – a. Create the above tables with the given specifications and constraints. b. Insert about 10 rows as are appropriate to solve the following queries. c. List the names of the teachers teaching computer subjects. d. List the names and cities of all staff working in your college. e. List the names and cities of all staff working in your college who earn more than 15,000. f. Find the staffs whose names start with 'M' or 'R' and ends with 'A' and/or 7 characters long. g. Find the staffs whose date of joining is 2024. h. Modify the databases of that staff N1 now works in C2 College. i. List the names of subjects, which T1 teaches in this session or all sessions. Note: Concerned teacher can add additional experiment as per requirement	**30**

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 marks

Continuous Internal Assessment (CIA): 15 Marks.

End Semester Exam (ESE): 35 marks

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks: -15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment A. Performed the task based on lab work- 20 marks B. Spotting based on tools & technology(written)-10marks C. Viva-voce(based on principle/technology)- 5 marks**	

SHRI DAVARA UNIVERSITY, NAYA RAIPUR (C.G.)

PART-A: Introduction			
Program: Diploma in Computer Application (Diploma)		**Semester-II**	**Session: 2024-25**
Course Code	**DCA206**		
Course Title	**Introduction to Tally**		
Course Type	**Practical**		
Prerequisite	As per program		
Course Learning Outcomes (CLO)	**At the end of this course, the students will be able** At the end of the course, students will be able to work independently on Tally for accounting and GST tasks.		
Credit Value	**1 Credits**	**1 Credit = 30 Hours – Lab practical's & training**	
Total Marks	**Max. Marks:50**	**Min marks -20**	

PART -B: Content of the Course

Total No. of Learning Training / Performance Periods (01 Hr. per period)-30 Periods (30 Hours)

Module	Topics(Course Content)	No. of Period
List of practical's Experiments	1. Journal Entries: a) Record the following transactions: i. Sold goods worth ₹50,000 to XYZ Enterprises. Received 50% payment via cheque. ii. Paid rent expense of ₹10,000 by cash. iii. Purchased machinery worth ₹1, 00,000 on credit from ABC Suppliers. 2. Ledger Maintenance: a) Create ledger accounts for the following: i. Furniture ii. Salary Expense iii. Capital Account 3. Perform shortcut key for: How to go to list of Ldgers. 4. Trial Balance & Final Accounts: a) Prepare a trial balance from the ledger accounts created in question 2. b) Prepare trading and profit & loss account for the following information: i. Sales: ₹2,00,000 ii. Purchases: ₹1,50,000 iii. Rent Expense: ₹10,000 iv. Salary Expense: ₹20,000 c) Prepare a balance sheet considering the capital account balance as ₹1,50,000. 5. Recording Purchases, Sales, Receipts, and Payments: a) Record the following transactions: i. Purchased goods worth ₹30,000 from LMN Traders on credit.	**30**

ii. Sold goods worth 40,000 to ABC Corporation. Received 60% payment via bank transfer.
iii. Received ₹15,000 from debtors.
iv. Paid electricity bill amounting to ₹5,000 by cheque.

6. Creating Vouchers:
a) Create the following vouchers:
i. Sales voucher for selling goods worth ₹60,000 to PQR Enterprises.
ii. Purchase voucher for purchasing office supplies worth 20,000 from DEF Suppliers.
iii. Contra voucher for depositing ₹10,000 cash into the bank account.

7. Perform shortcut key for: Open the Calculator within Tally Prime.

8. Bank Reconciliation:
a) Perform bank reconciliation for the following scenario:
i. Bank statement shows a balance of ₹1,20,000,
ii. Tally Prime ledger shows a balance of ₹1,35,000.
iii. Outstanding cheques total ₹15,000,

9. Perform shortcut key for: Create a voucher & Save a voucher.

10. Transactions Other Than Purchase and Sales:
a) Record the following miscellaneous transactions:
i. Paid insurance premium of 27,000 by cheque.
ii. Received interest income of ₹3,000 credited directly to the bank account.

11. Exporting Reports:

a) Export the trial balance prepared in question 3 to MS Excel format.

12. Creating GST Invoices:
a) Create a GST invoice for selling goods worth ₹80,000 to LMN Traders, including 18% GST.

13. Perform shortcut key for: View the Group Summary report.

14. Stock Management:
a) Add a new item "Laptop" to the inventory with an opening stock of 10 units.
b) Delete the item "Printer" from the inventory.
c) Modify the existing item "Chair" to adjust the selling price to ₹500.

15. Perform find/search function to find a particular amount or a narration

Note: Concerned teacher can add additional experiment as per requirement

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50 marks
Continuous Internal Assessment (CIA): 15 Marks.
End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	**Internal test/Quiz-:10 & 10 Assignment /seminar-05 Total marks: -15**	**Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.**
End Semester Exam (ESE):	**Laboratory/field skill performance: on spot Assessment**	

	A. Performed the task based on lab work- 20 marks **B. Spotting based on tools & technology(written)-10marks** **C. Viva-voce (based on principle/technology)- 5 marks**