



Eklavya University

SESSION

2023-24

D.C.A. I SEMESTER

SYLLABUS

OF

**Computer Application And Information
Technology Department**

School of Basic and Applied Sciences

EKLAVYA UNIVERSITY, DAMOH (M.P.)

Scheme of Examination DCA I 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	DCAPL20S101	Fundamental OF Computer & information Technology	60	30	10	-	-	100	4	-	-	4
2	DCAPL20S102	PC Packages (Word , Excel, Powerpoint)	60	30	10	-	-	100	4	-	-	4
3	DCAPL20S103	Database Using MSAccess	60	30	10	-	-	100	4	-	-	4
4.	DCAPL20S104	Computer Lab-1		-	-	30	20	50	-	-	4	4
Total			180	90	30	30	20	350	12	0	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.

01/06/23

1/6/23

Chokhare
01/06/23

01-6-23

01/06/23

Neel

Class		Diploma in Computer Applications (DCA)	
Semester/Year		SEMESTER — I	
Subject & Subject Code		FUNDAMENTAL OF COMPUTER & INFORMATION TECHNOLOGY - DCAPL20S101	
Max. Marks		60	
Credit		Total Credits	
L	T	P	4
4	0	0	

Course Objectives:

To enable the students to identify the components of a computer

1. To acquaint them with the knowledge on hardware, peripherals and software.
2. To make them to understand High Level Language, Low Level Language, testing and directory
3. To enable them to understand the application of computers in our daily life

Course Outcome:

1. Understand the basic knowledge of computer
2. Perform common functional operations in windows.
3. Identify Software and Hardware
4. Understand Testing, errors and debugging
5. Understand the usage of Computer
6. Understand windows directory

Student Learning Outcomes (SLO):

1. Bridge the fundamental concepts of computers with the present level of knowledge of the students.
2. Familiarise operating systems, programming languages, peripheral devices, networking, multimedia and internet
3. Understand binary, hexadecimal and octal number systems and their arithmetic.
5. Understand how logic circuits and Boolean algebra forms as the basics of digital computer.
6. Demonstrate the building up of Sequential and combinational logic from basic gates.

Unit	Syllabus	Periods
UNIT - I	Brief history of development of computers, Computer system concepts, Computer system characteristics, Basic components of a computer system - Control unit, ALU, Input/Output, semiconductor Memory functions and characteristics, memory - RAM, ROM, EPROM, PROM and other types of memory, Capabilities and limitations, Generations of computers, Analog 86 Digital & Hybrid Computers, General & Special Purpose computers, Types of computers-Micro, Mini, Mainframe and Supercomputers, Characteristics and area of Uses. Personal Computer (PCs-evolution of PCs, configurations of PCs, Pentium and Newer, PCs specifications and main characteristics, Types of PCs- Desktop, Laptop, Notebook, Palmtop, PDA etc.	8
UNIT - II	Input Devices: Keyboard, Mouse, Trackball, Joystick, Scanners, Digitizing tablet Digital Camera, MICR, OCR, OMR, Light pen, Barcode & Barcode Reader, Quick Response Code (QR Code), Voice Recognition, Touch Screen. Output Devices: Monitors- Characteristics and types of monitor, Size, Digital, Analog, Resolution, Refresh Rate, Interlaced / Non-Interlaced, Dot Pitch, Video Standard -VGA, SVGA, XGA etc. Printers and its Types Impact and Non-Impact printer, Dot Matrix, Inkjet, Laser, Plotter, 3D Printers, Sound Card and Speakers.	8

01/06/23
[Signature]

[Signature]
01/06/23

① [Signature]
01/06/23

[Signature]
01/06/23
[Signature]
01-6-23
[Signature]

UNIT - III	Storage Fundamentals - Primary Vs Secondary Data Storage and Retrieval Methods -Sequential, Direct And Index Sequential, Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, Zip Drive, Optical Disks, CD, VCD, CD-R, CD-RW, DVD, DVD-RW, Video Disk, Blue Ray Disc, flash drives SD/MMC Memory cards, Solid-State Drive (SSD), Physical structure of floppy & hard disk, drive naming conventions in PC.	8
UNIT - IV	Software and Its Need, Types of Software- System Software, Application Software, System Software- Operating System- definition & function, Device Drivers & Utility Programs, Introduction & Features of DOS, Windows, Programming Language Machine, Assembly, High Level, 4GL, their Merits and Demerits, Uses of Assemblers, Compilers and Interpreter. Application Software and its Types- Word Processing, Spreadsheet, Presentation Graphics, Data Base Management, Desktop Publishing, communication, Educational, Graphics & Multimedia, Business Accounting, MIS, Gaming and ERP Software etc. Computer coding system-ASCII, ISCII and Unicode, Number system of computers-Binary, Octal, Decimal, Hexadecimal their conversion.	8
UNIT - V	Use of communication and IT, Communication Process, Component of communication- sender, receiver, transmission medium & protocol, Communication types-Simplex, Half Duplex, Full Duplex, Communication Channels-Twisted, Coaxial, Fiber Optic, Modem-Working and characteristics, Types of network-client/server and peer-to-peer networks, Types of connections-Dialup, Leased Lines, ISDN, DSL, RF, Broad band uses, advantages & disadvantages, Types of Network-LAN, WAN, MAN, Internet, VPN etc., Topologies of LAN-Ring, Bus, Star, Mesh and Tree topologies structure, uses, advantages & disadvantages, Components of LAN-Media, NIC, NOS, Network devices- Bridges, HUB, Routers, Repeater, Gateways uses, advantages & disadvantages.	8

Text Books :-

- 1 G.Renugadevi(2010);Keyboard Shortcuts for computer Graphic esigning,Balaji
- 2 G.Renugadevi(2011);Computer Keyboard Shortcuts,Balaji
- 3 J.Veranathan(2012);Basic of Computers, Balaji

References Books :-

- 1 Fundamentals of Computers, Paperback by Reema Thareja, Oxford University Press.
- 2 Computer Fundamentals - 6th Edition by Pradeep K. Sinha, Priti Sinha, BPB Publications.
- 3 Computers Today, A. Ravichandran, Khanna Book Publishing.
- 4 Handbook of Computer Fundamentals by Nasib Singh Gill, Khanna Publishers.

ad
01/06/23

[Signature]
01/06/23

[Signature]
01/06/23

[Signature]
1/06/23

②

[Signature]
01/06/23

[Signature]
01/06/23

Class		Diploma in Computer Applications (DCA)	
Semester/Year		SEMESTER — I	
Subject & Subject Code		PC PACKAGES (WORD, EXCEL, POWERPOINT) - DCAPL20S102	
Max. Marks		60	
Credit		Total Credits	
L	T	P	4
4	0	0	

Course Objectives:

To enable the students to

1. Understand the components of office automation.
2. Perform operations using MS Word, Excel, PowerPoint
3. Surf details through Internet
4. Understand and discuss about the use of Office Package and internet in daily life.

Course Outcome:

1. Recognize and use the Office Package software
2. Identify and apply the menus in MS-Word
3. Understand the menus in Excel
4. Understand the components of Power point
5. Surf details through Internet
6. Recognize the use of Office Package and internet in daily life
7. Understand and practice the ethics in using internet

Student Learning Outcomes (SLO):

1. Describe the usage of computers and why computers are essential components in business and society.
2. Utilize the Internet Web resources and evaluate on-line e-business system.
3. Solve common business problems using appropriate Information Technology applications and systems.
4. Identify categories of programs, system software and applications. Organize and work with files and folders.
5. Describe various types of networks network standards and communication software.

Unit	Syllabus	Periods
UNIT - I	Operating System (Windows 8.1): Overview of Windows Operating System, Basic Operations-How to start a computer, login, logoff, hibernate, shutdown etc, Personalizing Desktop-Desktop Background, Icon, Screen Saver, Themes, Setting date & time, Task bar, Files & Folders, Create, Copy, 1ename, Moving & Delete Files & Folders, Create & Using Shortcuts, Recycle Bin.Accessories-MS Paint, Notepad, WordPad, Windows Media Player, Calculator, Games, Math Input Panel, Language Settings-How to set other languages on computer, Using Control Panel to add, remove or configuring new or existing devices and software programmes and fonts, Enhance the performance of computer, Using Disk Clean-up-Using Disk Defragmenter, Using Windows Update, Protecting your computer against viruses.	8

01/06/23

01/06/23

01-6-23

3

01/06/23

01/06/23

Redu

UNIT - II	MS Word Basics: Introduction to MS Office (2013), Introduction to MS Word, Features & area of use. Various versions of MS Office and their requirements, Working with MS Word, Menus & Commands, Ribbon, Toolbars & Buttons, Shortcut Menus, Wizards & Templates, Creating a New Document, Different Page Views and layouts, Applying various Text Enhancements- Fonts, Styles, Text Attributes, Formatting Your Text and Documents: Auto format, Paragraph and Page Formatting, Line spacing, Margins, Borders and Shading, Tabs and Indents , Text Editing using various features, Bullets, Numbering, Working with Styles, Printing & various print options , Working with Headers and Footers, Tables: Creating a simple table, Creating a table using the table menu, Entering and editing text in a table.	8
UNIT - III	Advanced Features of MSWord-Spell Check, Thesaurus, Find & Replace;, Files, Auto texts, Symbols etc., Working with Columns, Tabs & Indents, Margins & Space management in Document, Page, Column & Section Breaks, Adding References, Using footnote and endnote in documents, creating automatic Table of Contents, Graphics: Importing graphics, Clipart, Insert picture, Using Clip Art, Shapes and SmartArt in documents, using drawing features, drawing objects, text in drawing. Taking and inserting Screenshots in Documents, Using WordArt and Drop Ca-features in documents. Mail Merge in MS Word, Mail Merge concept, Envelops & Mailing Labels, Importing and exporting to and from various formats.	8
UNIT - IV	MS Excel Spreadsheet Basics & features, concepts of Workbook & Worksheets, Getting started, Creating a new worksheet, Using Wizards, Various Data Types, Selecting cells, Entering and editing text, Entering and editing Numbers, Removing & Resizing of Columns & Rows, entering and editing Formulas, Referencing cells, moving cells, copying cells, sorting cell data, inserting rows, inserting columns, Inserting cells, Deleting parts of a worksheet , clearing parts of a worksheet, Different Views of Worksheets. Formatting: Page setup, Cell Formatting, changing column widths and Row heights, auto format, changing font sizes and Attributes, centering text across columns, using border buttons and Commands, changing colors and shading, hiding rows and columns, Working with Data & Ranges, Column Freezing, Labels, Hiding, Splitting, merging etc. Charts: Chart parts and terminology, chart wizard, different types of charts, printing charts, deleting charts, Printing of Workbook & Worksheets with various options.	8
UNIT - V	MS PowerPoint: Introduction & area of use, Working with MS PowerPoint, Creating a New Presentation, Working with Presentation, Using Wizards; Slides & its different views, Inserting, Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists, Adding Graphics, shapes, screenshots, SmartArt and charts in presentation, Sounds and Movies to a Slide; Working with PowerPoint Objects, Designing & Presentation of a Slide Show, change Slide backgrounds, Change Slide Size, Using Animation and Transitions in presentation, Advanced, Slide, options-Manual & Automatic, Printing Presentations, Notes, Handouts with print options, Slide Master, Handout Master and Notes Master.	8

Text Books :-

- 1 Bhuvaneshwari(2014);Microsoft Excel-2013,Vikatan
- 2 J.Veranathan(2009);PowerPoint MS,Balaji
- 3 J.Veranathan(2012);MS Office,Balaji

References Books:

- 1 Introducing Windows 8.1 for IT Professionals Technical Overview, ED BOTT,
- 2 Office 2013 in Simple Steps, Kogent Learning Solutions Inc., Wiley India
- 3 Microsoft Office 2013 : Digital Classroom, Paperback by Walter Holland, ACI Creative Team, WILEY
- 4 Windows 81. by Pert Mason, Bookboon Download online at

Coel
01/06/23

[Signature]
01/06/23

[Signature]
01/06/23

[Signature]
01/06/23

[Signature]
01-6-23

Class		Diploma in Computer Applications (DCA)	
Semester/Year		SEMESTER — I	
Subject & Subject Code		DATABASE USING MS ACCESS -DCAPL20S103	
Max. Marks		60	
Credit		Total Credits	
L	T	P	4
4	0	0	
Course Objectives:			
<p>This course is an introduction to databases through Microsoft Access. It is designed for people who are used to managing data in spreadsheets but wish to understand why and how a database will provide a better solution. The course covers the difference between spreadsheets and databases and takes students through the process of creating a database, from design through to data population. In the second part of the course, students learn the fundamentals of the SQL query language and gain a full understanding of how to write queries in Access for retrieving and updating data.</p>			
Course Outcome:			
<ol style="list-style-type: none"> 1. understand how Access is used and how to navigate around it 2. design a database with lookup tables 3. create a database structure using Access 4. modify the structure of an existing table 5. add records to a new table 6. add transactional records to a lookup database 7. work with the records in a database table 8. sort and filter records in a table 9. create simple and effective queries 			
Student Learning Outcomes (SLO):			
<ol style="list-style-type: none"> 1. Examine database concepts and explore the Microsoft Office Access environment. 2. Design a simple database. 3. Build a new database with related tables. 4. Manage the data in a table. 5. Query a database using different methods. 6. Design a form. 7. Generate a report. 8. Import and export data. 			
Unit	Syllabus		Periods
UNIT - I	Introduction to database- What is a Database, Why use a Relational Database, concept of primary key relationship, Introduction to MS Access (Objects, Navigation)		8
UNIT - II	Create a Table in MS Access- Data Types, Field Properties, Fields: names, types, properties—default values, format, caption, validation rules Data Entry, Add record, delete record and edit text, Sort, find/replace, filter/select, rearrange columns, freeze columns. Edit a Tables- copy, delete, import, modify table structure, find, replace		8

ad
01/06/23
gsh

W
01/06/23

Devi
01-6-23
(5)
Arokhane
01/06/23

Sh
01/06/23
N

UNIT - III	Add a relationship, set a rule for Referential Integrity, change the join type, delete a relationship, save relationship Queries 85 Filter - difference between queries and filter, filter using multiple fields, Create Query with one table, find record with select query, find duplicate record with query, find unmatched record with query, run query, save and change query	8
UNIT - IV	Introduction to Forms Types of Basic Forms: Columnar, Tabular, Datasheet, Main/Subforms, add headers and footers, add fields to form, add text to form use label option button, check box, combo box, list box Forms Wizard, Create Template	8
UNIT - V	Introduction to Reports, Types of Basic Reports: Single Column, Tabular Report Groups/Total, single table report, multi table report preview report print report, Creating Reports and Labels, Wizard	8

Text Books : -

- 1 MS Access and relational database design.
- 2 MS Access 2010

References Books:

- 1 MS Office XP complete BPB publication ISBN 8 1-7656-564-4.
- 2 MS Access fast 86 easy by Faithe Wempen, PHI

Class		DIPLOMA IN COMPUTER APPLICATIONS (DCA)	
Semester/Year		SEMESTER — I	
Subject & Subject Code		Computer Lab 1 – DCAPL20S104	
Max. Marks		30 (ETA) +20 (IA) = 50	
Credit		Total Credits	
L	T	P	4
0	0	4	

Practical Questions:

Q. Load Microsoft Word & type the following text and do the following tasks:
Television

How does television affect our lives? It can be very helpful to people who carefully choose the shows that they watch. Television can increase our knowledge of the outside world, there are high quality programmers that helps us to understand many fields of study, science, medicine, the arts and so on. Moreover, television benefits very old people, who can't often leave the house as well as patients in hospitals. It also offers non native speakers the advantage of daily informal language practice. They can increase their vocabulary and practice listening.

On the other hand, there are several serious disadvantages of television. Of course, it provides us with a pleasant way to relax and spend our free time, but in some countries, people watch the 'blood tube' for an average of six hours or more a d Many children stare at a television screen for more hours each day than they anything else including studying & sleeping. It's clear that the tube has a powerful influence on their lives and that its influence if often negative.

1. Save your work as "Television" on Desktop.
2. Set the heading : Font Times New Roman Size 18, align centre & Bold,
3. Set the remaining text with font Calibri & size 12
4. Underline the heading & change all letters to uppercase
5. Run the spell checker.
6. Apply indentation to the first line of the second paragraph
7. Change the line spacing of the paragraphs to 1.5.
8. Apply a 6pt width page border to the document
9. Change the Page orientation to Landscape

Q. Type the given text in similar format using list in the word:

1. Select the first, then hold CTRL whilst selecting the rest > Right click on them> Double click on them > Use the TAB button
2. How do you get capital letters using just one finger?

cel
01/06/23

msk
01/06/23

ps
01-06-23
7

Shobhanu
01/06/23

Shub
01/06/23

Kadli

School of Basic & Applied Sciences

- Use the SHIFT LOCK key
- Use the TAB key
- Use the ESCAPE key
- Use the CTRL key

3. What is the short cut for copying data to the clipboard?

- CTRL + C
- CTRL + X
- CTRL + Z
- CTRL + V

Q. Create a table as shown below.

Student Name	Marks 1	Marks2	First Name	Last Name
--------------	---------	--------	------------	-----------

1. Enter the detail in the table

2. Insert one row after Marks 2 and name its heading as Total
3. Calculate total of Marks 1 & Marks2 and enter in Total Column
4. Bold the Student Name, Marks1, Marks2 , & Total

Q. Send a letter to your classmates using mail merge.

Q. Write about introduction of computer and insert pictures related to it.

Q. Open Microsoft Excel and perform the following

- Input experimental data into Microsoft Excel worksheet.
- Properly format and organize data inserted.
- Perform calculations in Microsoft Excel using formulas and various built-in functions.
- Generate simple and effective tables and graphs to describe experimental data in Microsoft Excel.
- Integrate both graphs and tables created in Microsoft Excel into Microsoft Word document.

Q. Present Power Point Slides to explain various input devices

Q. Present Power Point Slides to explain various output devices

Q. Present Power Point Slides to show various tourist places of Madhya Pradesh.

Q. Apply text and slide transitions

Q. Insert image & sound file in Presentation

01/06/23

Madh

01/06/23

01/06/23

8

01/06/23

01/06/23

Practical Questions:

MS ACCESS

Q. Create New Database name "student" (with relevant data type) and add following records

Roll NO	FNAME NAME	CITY COURSE	CITY	FEE DEPOSITED
100	Amit	MCA	Damoh	1000.00
101	Kavita	BCA	Damoh	500.00
102	Ananya	DCA	Bhopal	1500.00
103	Anil	PGDCA	Indore	800.00
104	Rahul	PGDCA	Nagpur	1200.00
105	Pramo	PGDCA	Jabalpur	1000.00
106	.Mohan	DCA	Bhopal	500.00

Perform the following operation on above database:

- To display all records in the database
- To display records based on some conditions
- To display the structure of the database
- To display FNAME and city whose course name is DCA
- To delete current record
- To delete records based on some condition
- To delete all the records in current database
- To replace all BOMBAY with MUMBAI
- To give details of FNAME & SNAME having fees deposited between 1400 and 3000.
- Modify the table and add one more field "INSTITUTE_NAME" and fill the data
- Sort/Index with City
- Sort/Index with FNAME & SNAME
- To count the number of records in the database
- To calculate the total fees deposited
- To input records and add them in the database
- Find the name of the student who deposited minimum fees
- To Display the sum of fees deposited by all DCA students
- To Display the sum of fees deposited in each course
- Add one more column "FINE" in table and insert 50 Rs in each record.
- Add one more column "TOTAL" in table and update the table as $TOTAL = FEE_DEPOSITED + FINE$
- Delete the column "TOTAL"
- Create two tables with attribute of your choice and perform the Join operation
- Create form to Input data using various controls

[Handwritten signature]

[Handwritten signature]
01/06/23

[Handwritten signature]
1-6/23

[Handwritten signature]
01/06/23

9

[Handwritten signature]
02/06/23

[Handwritten signature]
01/06/23
Neha