SYLLABUS OF

ADVANCE DIPLOMA IN COMPUTER APPLICATION

(ADCA)

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COURSE NAME
ADVANCE DIPLOMA IN COMPUTER APPLICATION (ADCA)

Eligibility : 10th Pass
Duration : 12 Months

COURSE STRUCTURE OF ADCA

PAPER CODE	SUBJECT	THEORY MARKS	PRACTICAL & PROJECT MARKS	MAX. MARKS
ADCA 201	COMPUTER FUNDAMENTAL & IT TOOLS	40	40	80
ADCA 202	DTP (DESKTOP PUBLISHING)	25	25	50
ADCA 203	INTRODUCATION WEB DESIGNING	30	30	60
ADCA 204	PROGRAMMING WITH 'C' LANGUGE	45	45	90
	TOTAL	280	280	560

PRACTICAL
The students have to devote half of the total time allotted to each paper of the course for the practical session. Practical assignments have been worked out for each theory paper. The Practical examination will be based on the subjects of above course.

PROJECT
Project is an important component of above course as a project provides an opportunity to the student to apply his / her knowledge and skills to real life problems. The Project is carried out by the student under guidance and support of faculty.

Aim of the Project
The aim of the project is to give the students an experience in solving a real life problem by applying knowledge and skills gained on completion of course at a given Level. It provides an occasion for students to develop written and communication skills. Project also helps the students to realize the importance of resource and time management, innovation and efficiency in task management apart from presentation skills. It also provides a good opportunity for students to build, enhance and sustain high levels of professional conduct and mind in the students. Taking up the project by a student prepares him for a job in industry and elsewhere.

Project Submission
The Project should be original, of real life value and not copied from existing material from any other source and a certificate to this effect duly signed by the Supervisor will be submitted to the institute. 50 marks are assigned to the Project so, the candidates are expected to carry out a project successfully and submit certificate in the prescribed format to the head of the institute in time.

PAPER CODE ADCA-201
COMPUTER FUNDAMENTAL & IT TOOLS

Outline of Course

Unit No.	Topic	Minimum number of hours
1.	Introduction to Computer and It `	10
2.	Operating System (DOS, Windows)	20
3.	MS- Word or Libre Office Writer	10
4.	MS-Excel or Libre Office Calc	20
5.	MS-Power Point or Libre Office Impress	20

Lectures	=	40
Practical/Tutorials	=	40
Total	=	80

Detailed Syllabus

UNIT – 1 Introduction to Computer and IT

Introduction of Computer, Data, Information, Data Processing, Brief history of development of Computers. Computer System Concept, Computer System Characteristics, Capabilities and Limitations, Types of Computer-Analog, Digital, Hybrid, General, Special Purpose, Micro, Mini, Super. Generations of Computers. Types of PCL, Computer Organization and working, basic components of a computer System, Software & Hardware Control Unit, ALU, Input / Output Functions and characteristic, Memory-RAM, ROM, EPROM, PROM and other types of Memory, Number System & devices.

UNIT – 2 Operating System (DOS, Windows)

What is Operating System , Type of Operating System, DOS , Commands, Internal Commands , directory, External command, What is windows? Types of Windows, Features of Windows,

Creating & Deleting, File, Folders, Shortcut, Readymade Icons etc. Personalize, Pop-up-menu-, Taskbar & Start Menu, Control Panel, System Tools, Application Program etc.

UNIT- 3 MS- Word or Libre Office Writer

What is MS-Office or Libre Office? Features of MS-Office or Libre Office, Application Program of MS – Office or Libre Office, Introduction to MS-Word or Libre Office Writer: Components of MS- Word or Libre Office Writer, Creating, Saving, and opening document Formatting a Document. Paragraph formats, aligning text and paragraph, Borders & Shading, header & Footer, Auto formatting, Auto correct, Bullets, numbering,. Spell check, Thesaurus, find & Replace, Inserting – page Numbers, pictures, files, Auto text, Symbols etc. Creation & working with tables, Document protection, Adding Graphics, mail merge, envelops & mailing labels. Macros etc.

UNIT- 4 MS-Excel or Libre Office Calc

Worksheet basics, Creating worksheet, entering data into worksheet, heading info, Data, text, dates, alphanumeric values, saving & quitting from worksheet. Opening & Moving around in an existing worksheet. Toolbars and Menus, keyboard shortcuts. Working with Single and multiple workbooks – coping, renaming, moving, adding, and deleting, coping entries and moving between workbooks. Auto sum - Coping Formulas – Absolute & Relative addressing. Working with ranges – Creating, editing and selecting ranges. Formatting of Worksheet – Auto Format, Changing – alignment, Character Styles, Column width, date format, borders & colors, currency sign. Graphics and Charts – Using wizards, various chart type, Formatting grid lines & legends Previewing & printing worksheet – page setting, print tittles, adjustment Margins, page break, headers and footers. Functions – Date & Time, Math's for Trigonometry, Statistical, Text and Logical functions, Database. Creating and using Macros. Database – Creation, Sorting, query & filtering a database. Multiple Worksheets – Concepts, Creating & using.

UNIT - 5 MS-Power Point or Libre Office Impress

Creating a New Presentation, Working with Presentation, using wizards, Slides & its different views, Inserting, Deleting and copying of slides, working with Notes, Handouts, Adding Graphics, Working with PowerPoint objects, designing & presentation of a slide show, printing Presentations, Notes, and Handouts with print options.

PAPER CODE ADCA-202
DTP (DESKTOP PUBLISHING)

Outline of Course

Unit No.	Topic	Minimum number of hours
1.	PageMaker Feature	20
2.	Corel Draw	20
3.	Photoshop	10

	Lectures	=	25
	Practical/Tutorials	=	25
	Total	=	50

Detailed Syllabus

UNIT-I PageMaker Feature:

File:- New, Open, Save, Save all, Revert, Export, Place, Links, Book Preference, Page Setup, Working With Tools, Print, Exit. Edit: Copy, Paste, Multiple paste, Select all, Paste Special, Insert Object, Edit Story Utilities: Aldus Assertions, Index Entry, Show Index, Create Index, Create TOC Layout: View, Guides and rules, Column guides, Go To Page, Insert Page, Remove Page,

Display master items, Auto flow. Types: Font, Size, Leading, Set width, Track, Type Style, Type Space, Paragraph, Indents/tabs, Hyphenation, Alignment, Style, Define Style, Fill and link, Rounded corners, Define colors. Windows: Arrange icons, Tile, Cascade, Tool box, Stype Palette, Color Palette, Library palette Help: Contents, Search, Shortcuts, using PageMaker Help, Learning PageMaker 5.0, About PageMaker.

UNIT-II Corel Draw

Introduction of Corel draw, component of Corel draw, working with Tool box, import, Export, New, Open, Save, Insert object, working with property bar, working with color plate, working with Zoom, working with Shapes, Move, copy, Duplicate, cloning, Resizing and the object, Drawing grids, working with Group, Ungroup and Arrange order, Setting the page setup, page background, adding , deleting and go to page and guide lines, Fills the multiple color and outline color , Formatting Text and paragraph, Using the transform Tools, Fitting text to a path, Using the envelopes, blends, Adding, Perspective, Symbols.

UNIT-III Photoshop

Introduction of Photoshop, Component of Photoshop, working with Tool box, import a file, New, Open, Save, working with property bar, working with Color and Layers, Page setup, Image size, resolution, working with selection Tools, Path, Type and Shapes Tools, working with menu and file, working with selection menu, Cutting, Copying, Cropping resizing, Canvas and Rotating a image, working with color models, working with color and image Adjustment, working with paintbrushes, Eraser and Pencil, working with foreground and background color, Water color, Oil painting, Layer palette, Formatting Character and paragraph, Creating Drop shadows, background, Bevel and Emboss effects, Lighting effects.

PAPER CODE ADCA-203
INTRODUCATION WEB DESIGNING

Outline of Course

Unit No.	Topic	Minimum number of hours
1.	Introduction of Internet	10
2	Electronic Mail	10
2.	HTML Programming Basics	30
4.	Internet Security Management Concepts	10

Lectures	=	30	
Practical/Tutorials	=	30	
Total	=	60	

Detailed Syllabus

UNIT – I Introduction of Internet

Internet, Growth of Internet, Owners of the Internet, Anatomy of Internet, ARPANET and Internet history of the World Wide Web, basic Internet Terminology, Net etiquette. Internet Applications – Commerce on the Internet, Governance on the Internet, Impact of Internet on Society – Crime on/through the Internet.

UNIT-III Electronic Mail

Email Networks and Servers, Email protocols –SMTP, POP3, IMAp4, MIME6, Structure Of an Email – Email Address, Email Header, Body and Attachments, Email Clients: Netscape mail Clients, Outlook Express, Web based E-mail. Email encryption- Address

Book, Signature File.

UNIT 3 - HTML Programming Basics
HTML page structure, HTML Text, HTML links, HTML document tables, HTML Frames HTML Images, multimedia

UNIT 4 - Internet Security Management Concepts
Overview of Internet Security, Firewalls, Internet Security, Management Concepts and Information Privacy and Copyright Issues, basics of asymmetric cryptosystems.

PAPER CODE DCA-204
PROGRAMMING WITH 'C' LANGUAGE

Outline of Course

Unit No.	Topic Minimum number of	hours
1.	Introduction to 'C' Language	15
2.	'C' Flow Chart & Data Type	15
3.	Input, Output, & Decision Statement	30
4.	The Loop & Case Control Structure	30

Lectures =	45	
Practical/Tutorials =	45	
Total =	90	

Detailed Syllabus

UNIT- I Introduction to 'C' Language
What is 'C' Language? Development Of 'C', Where 'C' Stands, Getting Started with 'C', History of 'C', What is Programming, What is Program, Writing Program, Types of Programming Language- Low Level& High Level, Programming Languages of Development, Interpreter, Compiler, Program of Execution.

UNIT- II 'C' Flow Chart & Data Type
What is Flow Chart? Types of Flow chart, Problem Solving with Flow Chart, Algorithm, Problem Solving with Algorithm, What is Variables, Types of Variables- Integer, Character, Float, Constants, Type of Constants, Operators, Arithmetic, String, Increment-Decrement Operators, Boolean Operators, Relational Operators, Logical Operators, Assignment Operators, Etc.

UNIT- III Input, Output & Decision Statement
What is Output Statement? Use of print Statement, Flow Chart, Problem Solving & Programming with Print Statement. What is Input Statement? Use of Scan Statement, Flow Chart, Problem Solving & Programming with Scan Statement. What is Decision Statement? Use of Decision Statement, Flow Chart, Problem Solving & Programming with if-Else Statement

UNIT-IV The Loop & Case Control Structure
What is Loop Statement? Types of Loops Control Structure- While Loop, For Loop,& Do-While Loop, Use of Loop Statement, Flow Chart, Problem Solving & Programming with Loop Statement. What is Case Control Structure? Use of Switch Statement, Flow Chart, Problem Solving & Programming with Switch Statement. Use of go to break Statement.