

# Advanced Diploma in Computer Applications (3 Years Program)

## ADCA

6 Months = Days-182, Working Days=140 Days, Teaching/ Practical=Hrs 1 Hrs / Day

### Project / Assignment

#### DCA-II

#### Fourth Semester

PAPER	TOPIC	Hrs	Days	MARKS
DCA205	Structure Query Analysis and Designing	15	15	25
	Lab Work: SQL -Server Query Practice Session	15	15	--
DCA206	Data Analysis and Reporting in SQL	15	15	25
	Lab Work: SQL Admin Commands Practice	15	15	--
DCA207	4GL Programming with Visual Basic	20	20	25
	Lab Work: Visual Basic 6.0 Intro and SDI, MDI	20	20	--
DCA208	Modular Programming with Database	20	20	25
	Lab Work: MS Access with Visual Basic	20	20	--
PRJ202	Project II Work with Visual Basic	--	--	50
Total		140	140	150

### Fourth Semester - Detailed Syllabus

#### Unit I: Structure Query Analysis and Designing

Introduction to SQL, SQL Datatypes, SQL Expression, SQL Comments, SQL Function, Basic Operators, View, Working of Where, Having, Group by Clause.

#### Unit II: Data Analysis and Reporting in SQL

Join, Types of Join, Normal Forms, The Problem of Redundancy in Database, Types of Normal Forms in SQL, Acid Properties in Database.

#### Unit III: 4GL Programming with Visual Basic:

Introduction to windows Programming, Understanding the Event Driven Model, Windows Applications Development Tools, Introduction to Visual Basic, Features of Visual Basic, Integrated Development Environment, Visual Basic Project & Forms, Creating Visual Basic Applications, use of Various Control in Visual Basic, Array in Visual Basic, Function in Visual Basic, Working with Menus in Visual Basic, Multiple Document Interface (MDI) in Visual Basic,

#### Unit IV: Modular Programming with Database

Visual Basic Database Architecture, Data Access Technology, Accessing Data using Data Control, Data Control Events, Data Access using DAO Programming, ODBC & Working of ODBC, ADO Architecture, Database Connectivity with ADOBC.