

# PGDCA

Duration: 1 Year

- Computer Fundamental
- Operating System
- Microsoft Windows
- Typing (English & Odia)
- Microsoft Office Package
- Document Package
- Spreadsheet Package
- Presentation Package
- Database Package
- Outlook
- Internet
- Spoken English
- DTP Package
- PageMaker
- Photoshop
- CorelDraw
- Tally.ERP 9
- Programming Language – C
- Web Design
- HTML5
- CSS3
- Photoshop
- Dreamweaver
- JavaScript
- JQuery
- Ajax

Calculator, Paint, Notepad,  
WordPad

## Detail Syllabus

### ❖ Computer Fundamental

- ✓ Characteristics of Computers
- ✓ Input, Output, Storage units, CPU
- ✓ Central Processing Unit (Processor Speed, Cache, Memory, RAM, ROM, Booting)
- ✓ Memory (Secondary Storage Devices: Floppy and Hard Disks, Optical Disks CD- ROM, DVD, Mass Storage Devices: USB thumb drive. Managing disk Partitions)
- ✓ Input Devices (Keyboard, Mouse, joystick, Scanner, web cam)
- ✓ Output Devices (Monitors, Printers)
- ✓ Binary number system, Binary to Decimal Conversion, Decimal to Binary Conversion, ASCII Code
- ✓ Multimedia (What is Multimedia, Text, Graphics, Animation, Audio, Images, Video)
- ✓ Multimedia Application in Education, Entertainment, Marketing.
- ✓ Computer Software and Types of Computer Software
- ✓ Computer Language

### ❖ Operating System

- ✓ Introduction
- ✓ Functions of Operating System
- ✓ Types of operating system
- ✓ Microsoft Windows
  - ✓ An overview of different versions of Windows
  - ✓ Basic Windows elements
  - ✓ File management through Windows
  - ✓ System tools (Disk cleanup, Disk defragmenter)
  - ✓ Entertainment, Games,

### ❖ Overview of Linux

#### ❖ Word Processing

- ✓ Introduction
- ✓ Saving, Closing, Opening an existing document
- ✓ Selecting text, editing text
- ✓ Finding and Replacing text
- ✓ Applying Bullets and Numbers
- ✓ Columns Formatting
- ✓ Page Break
- ✓ Adding Borders and Shading
- ✓ Inserting Auto shapes and Pictures
- ✓ Printing Documents
- ✓ Creating and Printing Merged Documents
- ✓ Character and Paragraph Formatting
- ✓ Page Design and Layout
- ✓ Checking and Correcting Spellings
- ✓ Handling Graphics
- ✓ Creating Tables and Charts
- ✓ Document Protection
- ✓ Working in Different Views
- ✓ Document Templates and Wizards.

#### ❖ Spreadsheet Package

- ✓ Introduction
- ✓ Creating, Saving and Editing a Workbook
- ✓ Inserting, Deleting Work Sheets
- ✓ Entering data in a cell / formula
- ✓ copying and moving from selected cells
- ✓ handling operators in Formulae
- ✓ Functions (Mathematical, Logical, statistical, text, financial, Date and Time)
- ✓ Use of Function Wizard
- ✓ Cell formatting
- ✓ Printing worksheets

In front of Sambad office. Maitree Lane,  
Link Road, Cuttack-753012 Call: 0671-2313724

- ✓ Charts and Graphs
- ✓ Cell data validation
- ✓ Working in Different Views
- ✓ Worksheet Protection

### ❖ **Presentation Package**

- ✓ Introduction
- ✓ Creating, Opening and Saving Presentations
- ✓ Creating the Look of Your Presentation
- ✓ Working in Different Views
- ✓ Working with Slides
- ✓ Adding and Formatting Text
- ✓ Formatting Paragraphs
- ✓ Checking Spelling and Correcting Typing Mistakes
- ✓ Making Notes Pages and Handouts
- ✓ Drawing and Working with Objects
- ✓ Adding Clip Art and other pictures
- ✓ Designing Slide Shows, Running and Controlling a Slide Show
- ✓ Printing Presentations

### ❖ **Database Package**

- ✓ Introduction
- ✓ Designing New Database
- ✓ Designing Table
- ✓ Working with Table
- ✓ Creating a Form
- ✓ Form Operations
- ✓ Different types of Queries
- ✓ Creating Reports
- ✓ Importing Data
- ✓ Additional Features

### ❖ **MS Outlook**

- ✓ Introduction
- ✓ Outlook Environment
- ✓ Address, Compose and Send Messages

- ✓ Message Delete & Print
- ✓ Message Reply and Forward
- ✓ Attach a File
- ✓ Managing Mail
- ✓ Move or Copy Messages to a Folder
- ✓ Scheduling Appointments
- ✓ Managing Contacts
- ✓ Managing Tasks

### ❖ **Internet**

- ✓ What is Networking?
- ✓ Types of Networking?
- ✓ Introduction to Internet
- ✓ Webpage and Website
- ✓ Search Engine
- ✓ Browsing

### ❖ **PageMaker**

- Introduction
- PageMaker Toolbox
- PageMaker Palettes
- Creating Documents
- Document Operations
- Creating and Using Templates
- Creating and Using Frames
- Paragraph Formatting
- Modifying Character Attributes
- Importing Text
- Adding Bullets and Numbering
- Importing Graphics
- Editing and Cropping Images
- Color Palette
- Applying Fill and Stroke Color
- Printing Document

### ❖ **Photoshop**

- ✓ Introduction
- ✓ Menu Bar, Status Bar and Toolbox
- ✓ Working with Layers

- ✓ Merging Layers and Locking Layers
- ✓ Blending Modes, Opacity and Fill
- ✓ Adjusting Canvas Size and Rotation
- ✓ Creating Text, Applying Styles
- ✓ Image Size and Resolution
- ✓ Patch Tool Image Correction
- ✓ Transforming of Images
- ✓ Color Palette
- ✓ Using Filters for Effect Render, Glass, Wood Texture

## ❖ CorelDraw

- ✓ Introduction
- ✓ The Drawing Area
- ✓ Drawing Objects and Lines
- ✓ Working with Text
- ✓ Importing File
- ✓ Modifying Objects
- ✓ Adding a Graphic Image
- ✓ Working with Text Object
- ✓ Formatting Objects
- ✓ Paragraph Text Formatting
- ✓ Wrapping Text
- ✓ Creating and Editing Text Style
- ✓ Working with Templates
- ✓ Drawing and Editing Curves and Lines
- ✓ Inserting and Editing ClipArt from Web
- ✓ Creating Symbols
- ✓ Inserting Special Characters
- ✓ Printing Options

## ❖ Tally.ERP 9

- ✓ **Basics of Accounting**
- ✓ Introduction
- ✓ Accounting Principles, Concepts and Convention
- ✓ Double Entry System of Book

- Keeping
- ✓ Types of Accounts
- ✓ Golden Rules of Accounting
- ✓ Mode of Accounting
- ✓ Financial Statements
- ✓ Recording Transactions of Sample Data

## **Fundamentals of Tall.ERP 9**

- Introduction
- Getting Functional with Tally.ERP 9
- Creation / Setting up of Company in Tally.ERP 9
- Company Features
- Configurations

## **Creating Accounting Masters**

- List of Accounts
- Groups
- Ledgers
- Voucher Types
- Creating Chart of Accounts
- Lab Exercises

## **Creating Inventory Masters**

- Stock Group
- Stock Categories
- Units of Measure
- Godowns
- Stock Items
- Voucher Types
- Creating Inventory Masters
- Lab Exercises

## **Voucher Entry**

- Accounting Vouchers
- Recording Accounting Vouchers
- Inventory Vouchers
- Recording Inventory Vouchers
- Invoicing
- Lab Exercises

## **Basic Reports**

- Financial Statements
- Accounting Books & Registers

- Inventory Books & Reports
- Exception Reports
- Lab Exercises

### **Multilingual Capabilities**

- Configuring Tally.ERP 9 for Multilingual Capabilities
- Creating Masters
- Entering Transactions
- Transliteration
- Generating Reports

### **Tally.ERP 9 Technological**

#### **Advantages**

- Tally Vault
- Security Controls
- Tally Audit
- Backup and Restore
- Split Company Data
- Export and Import of Data
- ODBC Connectivity
- Web Enabled, Print Preview and Online Help
- Printing Reports

### **Advanced Accounting**

- Bill-wise Details
- Cost Centres and Cost Categories
- Voucher Classes
- Cost Centre Class
- Multiple Currencies
- Interest Calculation
- Budgets & Controls
- Scenario Management
- Banking
- Stock Summary
- Trial Balance
- Lab Exercises

### **Advanced Inventory**

- Order Processing
- Reorder Levels
- Tracking Numbers

- Batch-wise Details
- Additional Cost Details
- Bill of Material (BOM)
- Price Levels and Price Lists
- Stock Valuation
- Zero Valued Entries
- Inventory Ageing Analysis
- Different Actual and Bill Quantities
- Lab Exercises

### **Value Added Tax (VAT)**

- Basic Concepts in VAT
- Configuring VAT
- Creating Masters
- Entering Transactions
- Accounting for Return of Goods
- Rate Difference in Purchase / Sales
- Accounting for Interest Transactions
- Exempt Transaction under VAT
- Purchase from Unregistered Dealers
- Claiming ITC on Capital Goods
- Inter Sate Branch transfers
- VAT Reports
- Lab Exercises
- VAT for Composite Dealers

### **Central Sales Tax (CST)**

- Basic of Central Sales Tax (CST)
- Enabling CST in Tally.ERP 9
- Recording Interstate Transactions in Tally.ERP 9
- Payment of CST
- CST Reports
- Lab Exercises

### **Tax Deducted at Source (TDS)**

- Basic concepts of TDS
- Configuring TDS
- Creation of Masters
- Recording Transactions
- TDS Reports
- Lab Exercises

### **Tax Collected at Source (TCS)**

- Basic concepts of TDS

- Configuring TCS
- Creation of Masters
- Recording Transactions
- TCS Reports
- Lab Exercises

### **Service Tax (ST)**

- Basic of Service Tax
- Configuration
- Creating Masters
- Recording Transactions
- Accounting for Advance Receipts
- Accounting for Opening Service Tax Credit
- Adjustment of Input Service Tax Credit
- Payment of Service Tax
- Service Tax Reports
- Lab Exercises

### **Excise for Dealers**

- Basic Concepts
- Enabling Dealer Excise in Tally.ERP 9
- Creating Masters
- Recording Transactions
- Excise Repots
- Accounting for Returns of Goods
- Lab Exercises

### **Excise for Manufactures**

- Basic Concepts of Excise Duty
- Configuring Excise in Tally.ERP 9
- Creation of Masters
- Recording Transactions
- Excise Reports
- Lab Exercises

### **Payroll Accounting**

- Configuring Payroll in Tally.ERP 9
- Creating Payroll Masters
- Processing Payroll in Tally.ERP 9
- Accounting for Employer PF Contributions
- Accounting for Employer ESI Contributions
- Accounting for Income Tax
- Payment of Professional Tax
- Generating Payroll Reports
- Lab Exercises

### **Job Order Processing**

- Features of Job Order Processing
- Configuring Job Order Processing
- Job Order Processing
- Job Order Reports
- Lab Exercises

### **Job Costing**

- Configuring Job Costing
- Creating Masters for Job Costing
- Recording Transactions
- Job Costing Reports
- Lab Exercise

### **Tally.NET and Remote Capabilities**

- Overview of Tally.NET
- Configure Tally.NET Features
- Connect Company on Tally.NET Features
- Create Remote Users
- Authorize Remote Users
- Remote Access

### **Application Management and Controls**

- Concept of Control Centre
- Installing & Activating Tally.ERP 9
- Logging to Control Centre
- Managing Accounts using Control Centre

### **Online Help and Support**

- Features of Support Centre
- Accessing the Support Centre

Using Support Centre

### **❖ C Programming Language**

#### **Introduction**

- Why C
- C Compiler, Operating System
- Structure of C Program
- Compilation
- Header Files



## **Data Types and Keywords**

- Overview of Data Types
- Use of Data Types
- Modifiers, Qualifiers, Format Specifiers
- Rules for Identifiers
- Constants and Variables
- Keywords

## **Operators**

- Types of Operator and their Application
- Operator Precedence and Associativity
- Operator Notation

## **Input/output in C**

- I/O Operations
- Formatted and Unformatted I/O

## **Control Structure**

- Decision Control Structure (If... Else)
- Selection Control Structure (Switch, Case)
- Jumping Control Structure (Goto)
- Repetition Control Structure (While, Do..While and For)

## **Function**

- Importance of Function
- Types of Function
- Function Calling Conventions
- Recursion

## **Storage Class**

- Properties of Storage Class
- Scope
- Implementation

## **Array**

- Why Array
- Types of Array
- Array and function

## **Pointer**

- Pointer and Address
- How Pointer Works
- Application of Pointer

- Pointer and Array
- Pointer and Function

## **Dynamic Memory Allocation**

- What is DMA
- DMA Functions

## **Preprocessor**

- Introduction
- Types of Preprocessor Directive

## **Structure and Union**

- What is Structure?
- Implementation of Structure
- Structure and Array
- Structure and Function
- Structure and Pointer
- What is Union?

## **Files**

- What is File?
- Types of File
- File Operations
- File I/O Functions

## **Command Line Arguments**

- What is Command Line Argument
- Use of Command Line Argument

## **❖ Web Designing**

### **Introduction**

- Introduction to Web Design
- Scripting Language
- Server and Client

### **HTML5**

- Introduction
- History of HTML
- HTML Tags with Example

### **Photoshop**

- Introduction

- Menu Bar, Status Bar and Toolbox
- Working with Layers
- Merging Layers and Locking Layers
- Blending Modes, Opacity and Fill
- Adjusting Canvas Size and Rotation
- Creating Text, Applying Styles
- Image Size and Resolution
- Patch Tool Image Correction
- Transforming of Images
- Color Palette
- Using Filters for Effect Render, Glass, Wood Texture

### **CSS3**

- Introduction to Style Sheet
- Types of Style Sheet
- Inline, Embedded, Extended Properties
- CSS3 Modules
- Bootstrap Framework

### **Flash**

- Animation Concepts
- Working with Tools
- Creating Basic Animation Frame by Frame
- Creating Symbols for Animation
- Motion between Animation
- Movie Clips
- Creating Web Banners
- Creating Web Buttons
- Creating Web Advertisement
- Creating Interactive Web Presentation

### **Dreamweaver**

- Exploring Dreamweaver Interface
- Planning and Setting Website Structure
- Working with Panels
- Understanding Views
- Formatting Text
- Creating Web Page
- Hyperlinking Pages
- External Linking
- Anchor and Email Link
- Inserting Table
- Setting Table Properties
- Working with Images

- Image Linking
- Working with Forms
- Validating Forms
- Working with Templates
- Creating Interactive Website

### **JavaScript**

- Introduction
- JavaScript Declaration
- Statements, Comments, Variables and Operators
- Popup Box
- Functions
- Control Structure
- Events
- Windows Objects

### **Jquery**

- Introduction
- Features
- Steps to Use Jquery
- Functions
- Jquery Validation
- Jquery UI
- Fancy Box
- Light Box
- JSON

### **AJAX**

- Introduction
- How Ajax Works
- Data Transmission using Ajax
- Ajax Declaration
- Different Types of Examples