# Khyber Pakhtunkhwa Board of Technical Education, <u>Plot-22 Sector B-1</u>, <u>Phase-V Hayatabad</u>, <u>Peshawar</u>

#### SCHEME OF STUDIES & EVALUATION PLAN FOR ONE YEAR DIPLOMA IN INFORMATION TECHNOLOGY COURSE (2011)

Sr.	Subject	Theory	Practical	Theory	Practical	Total
No		Hours	Hours	Marks	Marks	Marks
1.	Information & Communication Technology (ICT)	40	40	100	50	150
2.	Office Automation, (World / Excel /Power Point)	40	80	50	100	150
3.	Computer Network	60	40	50	100	150
4.	Operating System	40	80	50	100	150
5.	Computer Programs C/C + +	40	40	50	50	100
	Total	120	280	300	400	700

# PART-I

# PART-II

S No	Subject	Theory	Practical	Theory	Practical	Total
		Hours	Hours	Marks	Marks	
1	Introduction to Data base	80	40	100	50	150
2	MS Access	40	80	50	100	150
3	E- Commerce & Web Technology.	80	80	100	50	150
4	Graphic Design	40	80	100	50	150
5	Project .			-	100	100
	Total	240	280	350	350	700

Part-1/ First Semester Technology **Diploma in information** 

#### Information & Communication Technology (ICT)

(PAPER-1)

Total Th Hrs40Total Th Mks100

Total Pr Hrs40Total Pr. Mks50

#### **OBJECTIVES.**

This course provides an overview of computing and computer science, including such topics as the history of computers, computer application, and basic understanding of various hardware components. Hands-on experience in installation and configuration is included. Students learn how software interacts with and controls the computer's hardware elements. Analytical logic and troubleshooting skills are emphasized. Basic networking concepts are introduced.

#### **Course Contents.**

#### 1. Introduction to information technology

(Information Technology, Data types of data, information, History of computing Introduction to computer hardware and trouble shooting concepts

#### 2. Introduction to computer

#### Hardware

Introduction to the personal Computer, safe Lab procedures and Tool Use, Computer Assemble Step-by-Step, Basics of preventive Maintenance and Troubleshooting. Fundamental Operating System, Fundamental Laptops and portable Devices, Fundamental printers and Scanners.

#### **Storage Devices**

Main / primary memory (RAM, ROM)

Secondary / Auxiliary Storage Devices

(Hard Disk, CD-ROM, Magnetic tape, Magnetic drum), USB

Introduction of Microprocessor, Basic Architecture of microprocessor, and Introduction of different technologies of microprocessors

#### 3. Software design and algorithm:

Software, System Software, Application Software, Flow Charts, concepts of programming languages & their types, compiler, Interpreter, Assemble

#### 4. Productive Enhancement Software Packages

Introduction of Word Processors, Spread Sheets, Database

Introduction of Number System and their inter conversion

Impact of computers and internet on society (uses and misuses) Computer Codes

(BCD, EBCDIC, ASCII, and Unicode)

#### CAD/CAM

Speculation on future computers and their uses, Al Neural network, Expert System, virus, Antivirus.

#### 5. Fundamental Networks

Networks and its types, networks media, Topologies, network Devices

#### **Books:**

- 1. Introduction to computer By Peter Norton,
- 2. Introduction to computer By John R,. Roos, Glencoe.
- **3.** DIT-1 by Mohammad Khalid.
- 4. Introduction to I.T by Imran Syed.

#### **OFFICE AUTOMATION.**

(Version 2007 and onward)

#### (PAPER-I)

# Total Th Hrs40Total Th Mks50

Total Pr Hrs80Total Pr. Mks100

#### A- WORD PROCESSING

Ms-Word, Word processing, Manual and electronic Word processing

#### 1. Screen Layouts

Menus Shortcut Toolbars Customization of Toolbars Title Bar, Status Bar, Scroll Bars and Rulers.

#### 2. Working with files

Create, Open, Save, Rename and Close a document Working on Multiple Documents. Cut, Copy, Paste, Special Undo and Redo Operations Find Replace and go to Commands Text, Paragraph and Page Formatting Header and Footer **Date and Time** Bullets and Numbering Columns and Drop Caps Tabs and Margins Comments and Foot Notes Insert a picture and its Formatting Use of Spelling and Grammar Check , Auto Correct Synonyms Theasurus. Page Break Section Break and Background Printing Table of contents Glossary,

Table of contents clossary,

Hyperlink and Bookmark

Insert a Table, Add and

Delete Columns Rows and Cells Merge and Split Cells Formula Implementations

#### 3. <u>Document Printing</u>

Selection of a printer Printing Setting Print Preview Print and Page Setup Shortcut Keys

#### **B- MS- EXCEL**

Basic Terminology of Ms- Excel

Creating Opening Renaming Saving and Closing Workbook/ Spread

Sheet

Editing Functions: Undo, Redo. Fill, Auto Fill, Delete, Cut, Copy, Paste, Clear, Find and Replace

Inserting: Header & Footer Cells Rows / Columns and Worksheet

Working with Formulas: Entering Formula with the help of Formula Bar Entering Formula.

Directly into the cells, sue of Arithmetic and Logical Formulas.

Use of Built- in functions Time and Date Concatenation, Sum if,

Nested Max, Min.

Average, Count, Now, Month, Day, Year Upper, Lower, Left & Right. Tools and Date: Spell Check, Auto Correction, Workbook protection Data Sorting and filtering Formatting Cells and Text, Borders and Shading, Positioning Cells and Text, Auto Format,

Categories, of numbers, Cell / Range Referencing, Alignment, Date & Time Working With Charts, Creating Editing and Formatting of various types of Charts

Printing: Selecting Printer, Print selected areas page selection - Sorter View.

#### **C- POWER POINT**

1. Define Power Point

#### 2. PRESENTAION.

Power point presentation environment

View icon of Power Point

- Start Power Point, Open a Presentation
- 3. Creating a new presentation using

MS- Power point by

Creating By Design Template

Creating By Blank Presentation

What is slide?

4. Choose an Auto Layout, Using Auto Layout

- 5. Editing and Formatting a Text Box
- 6. Choose a Common Text Tool in the Formatting Tool Bar
- 7. Apply design Template
- 8. Set Background & Layout of Slides
- 9. Adding Pictures and Graphics in a slide
- 10. Apply Custom Animation Apply present animation
- 11. Apply Action Setting
- 12. Adding Sound to an Animation
- 13. Add Sound and Music effects

to the presentation

- 14. Set view Options
  - Normal View
  - Outline View
  - Slide View
  - Sorter View
  - Notes Page View
  - Slide Show
  - Slides Show Off
  - Important Short cut keys

#### **Reference books / Helping Material**

- 1. Business information technology-1 by Mohammad Khalid.
- 2. Microsoft Office by Danoja & June Jamrich Parsons.

**Diploma in information** 

Part-1/ First Semester Technology

# **Computer Networking**.

#### (PAPER-I)

Total Th Hrs60Total Th Mks50

Total Pr Hrs40Total Pr. Mks100

#### **OBJECTIVES**

- Understanding the basic concept of computer networks.
- Understanding the different types of computer networks.
- Understanding the different types of communication.
- Configuring different network devices.
- Creating different network scenarios in a network simulator (packet tracer)

#### **COURSE CONTENTS**

PART-1 Basic Terminologies

Definition and History of Computer Networks.

Local Area Network (LAN)

Metropolitan Area Network (MAN)

Wide Area Network (WAN)

Basic Network Terminologies.

- Data
- Data rate
- Baud rate
- Peak data rate.
- Bursty data.

Peer-to-peer Network Vs Server basic Network Networking Topologies

• Mesh, Bus, Star, Ring, Hybrid

#### **Networking Devices**

- Node
- NIC

- Modem
- Access point
- Hub ( active Hub, Passive Hub)
- Bridge
- Switch
- Router

#### Transmission media

- Wired media
  - Coaxial cable (10 Base2 10 Base 5 10Base T, 100Base X)
  - Twisted pair cable
- Unshielded twisted- pair (Cat1,Cat 2, Cat 3, Cat 4, Cat 5, Cat 6, )
- Shielded twisted- pair
  - Fiber optic cable
- Wireless media
  - Reasons for wireless network
  - Wireless communication with LANs

#### **Types of Connectors**

- RJ45
- RJ11
- BNC

#### What is OSI Model?

- Application Layer
- Presentation Layer
- Session Layer
- Transport Layer
- Network Layer
- Data Link Layer
- Physical Layer

#### **IP Addresses**

- IPv4
  - o Class A, Class B, Class C, Class D, and Class E, IP addresses

#### • Introduction to IPv6

#### Subnets

Routed protocols and Routing Protocols (Deification, Similarity, Differences and examples)

#### **Practical Portion**

Installing and Configuring Modem DSL Configuration Creating Straight Through cable Creating Cross Cable Creating Rollover Cable Basic Commands for Troubleshooting

• Ping, ipconfig / all, ipconfig / renew, ipconfig / release, trace route,

# Case Study:

Installing network simulator (packet Tracer) Creating simple network scenarios Configuring PC's with IP addresses subnet mask and gateway Configuring switches by giving name to switches and management IP addresses Connection PCs to switch and then ping each other` that they are working properly.

# **Reference Books / Helping Material**

- 1. DIT –I by Mohammad Khalid
- 2. Networking Essential By Andrew Tanenbaum.

Technology

# **OPERATIONG SYSTEM.**

#### (PAPER-I)

Total Th Hrs40Total Th Mks50

Total Pr Hrs 80 Total Pr. Mks 100

#### **OBJECTIVES**

- Understanding Desktop Operating System and Server Operating System.
- Understanding the role of Operating System in computing environment.
- Hands on practice on Windows 7, Windows 2008 Server and Linux.
- Networking Features in Operating System.

#### COURSE CONTENTS

#### **General**

What is an Operating System and its role in the Computing environment?

Major parts of Operating System.

Classification of Operating System.

• Desktop Vs Server base Operating System.

#### Windows 7

- Installing Windows 7
- Configure disks, Partitions, volumes, and device drivers.
- Configure file access and printers on a Windows 7 client computer.
- Configure network connectivity on a windows 7 client computer.
- Configure wireless network connectivity on a windows 7 client computer. (Bluetooth, Wi Fi)
- Secure Windows 7 client desktop computers.
- Optimize and maintain the performance and reliability of a windows 7 client. computer
- Remote access setting for a windows 7 client computer.

#### Windows Server

• Installing Windows Server 2008

#### Introduction to Administrative Tasks in Windows Server 2008 Environment

• Managing Server Roles and Features.

- Overview of Action Directory.
- Using Windows Server 2008 Administrative Tools.

#### **Creating Action Directory Domain Services User Computer Objects**

- Managing User Accounts.
- Creating Computer Accounts.

#### **Creating Groups and Organizational Units**

- Introduction to Groups .
- Managing Groups .
- Creating Organizational Units.

#### **Creating and Configuring Groups Policy**

- Overview of Groups Policy.
- Configuring the Scope of Groups policy Objects.
- Managing Groups policy Objects.
- Delegating Administrative Control of Group Policy.
- Configuring Group policy setting.
- Configuring Security Policies.
- Configuring an Audit Policy.

# DNS

- Installing and Configuring the DNS Server Role.
- Managing and Troubleshooting DNS.

#### Managing Windows Server 2008 Backup and Restore

- Backups with windows Server 2008.
- Planning Backups Policy on Windows Server 2008.
- Planning a Server Restore Policy.

# Linux

Installing Linux (Red Hat).

File System Management.

Creating user accounts Installing application software's in Linux. Configuring device drivers. Executing basic commands in Terminal .

#### **<u>Reference Books / Helping Material</u>**

- 1. DIT-I by Mohammad Khalid.
- 2. Operating System concept by William stalling.
- 3. Operating System by Andrew S.Tanenbaum.

Part-1/ First Semester Technology

# Computer Programming C / C + +

#### (**PAPER-1**)

Total Th Hrs40Total Th Mks50

Total Pr Hrs40Total Pr. Mks50

#### **Objective**

Hundreds of computer languages are in use today, C/C ++ is one of them. It is one of the most powerful, general purpose high level programming language. It is a versatile language. This language can be sued for almost any programming task. The purpose of including this subject in DIT course is to enable the students to develop application programs in various fields such as business, education, accounting, database management etc.

# Chapter No. 1WHAT IS C / C + + ?Objective

The purpose of this chapter is to discuss the C/C ++ language, its advantages and its brief history.

- What is C?
- Advantages of C language.
- C's Weaknesses
- History of C.
- Difference between C & C ++

# Chapter No.2BASIC LELMENTS OF C/C ++ PROGRAMObjective:

The purpose of this chapter is to equip the students with different elements of C/C ++ that are required to write a complete C/C ++ program.

- $\circ$  C/C ++ Character Set.
- $\circ$  C/C ++ Reserved Words.
- User- defined Words.
- o Variables
  - Naming Variables
  - Variable Types
- Constants.
  - Numeric Constants
    - Integer Constants
    - Floating Point Constants.

- Exponential Real Constants.
- Non-Numeric Constants.
  - Character Constants
  - String Constants
- \* C/C + + Operators.
- \* C/C + + Expressions
- \* C/C + + Statements.

# **STRUCTURE OF C/C + + PROGRAM**

#### Objective

**Chapter No.3** 

C/C + + statement are usually composed of keywords, which are used in conjunction with the basic element of the language like constants, variables and expression. The purpose of this chapter is to discuss the structure of a C/C ++ program as well as those statements, which appear in almost every C/C++ program.

- \* Structure of C/C ++ program
- \* C/C ++ comments.
- \* C/C++ libraries
- \* C/C ++ Data types.
- \* The size of operator
- \* Declaring Variables & Constants.
- \* Assignment & Multiple Assignment operator.
- \* How to assign String data?
- \* Priority of Operations
- \* Types Casting Operator.
- \* Increment (++) & Decrement (--) operators.
- \* Compound assignment operators

# **OUTPUT STATEMENS.**

#### **Objective:**

**Chapter No. 4** 

There are several C/C++ functions to indicate different types of actions to be performed during executions. Output functions are one of them. This chapter will discuss those functions, which appear in almost every C/C ++ program.

- \* The **printf** ( ) function.
- \* The **clrser** ( ) function.
- \* The **cout**, output stream.
- \* The **putch** () & **putchar** () Character output Function.

\* The **puts** ( ) String output Function.

#### <u>Chapter No. 5</u> <u>INPUT STATEMENTS</u>.

#### **Objective**

Data may be accepted for variables at the time of program's execution. For this purpose, different input statements are used, which will be discussed in this chapter

- \* The scanf () function
- \* The **gets** ( ) function.
- \* The getchar (), getch (), and getch () functions.
- \* Input using **cin**

#### Chapter No. 6 MAKING DECISIONS.

#### **Objective**

In this chapter, students will learn how to make decisions in C/C++. They learn how to code the program, so that the computer tests a condition and selects one of two alternative actions depending on whether the condition is true or false.

- \* Transfer of Control Process.
- \* The **if**, **if** else and **nested if** statements.
- \* Relational operators.
- \* Conditional Operators.
- \* Multiple Choice statements (switch / case / break / default).

#### Chapter No.7

# <u>looping</u>

#### **Objective**

The counter & looping are two main features of computer programming. After this chapter, students will be able to know, how to construct or design a program with looping structure.

- \* Counters.
  - Standard Counter.
  - Accumulator Counter.
  - Multiplicative Counter.
- \* Looping in C/C ++
- \* The **for** & **nested** for statement
- \* The **while** loop.
- \* The do **while** loop.

\* The break, continue and exit () statements.

\* Preprocessor Directive.

# Chapter No. 8STANDARD LIBRARY FUNCTIONObjective

Library functions make programming much simpler in many situations and save the programming effort. This chapter equip the student with the most important the most widely used library functions.

- Trigonometric Functions Sin(), cos(), tan() etc.
- Arithmetic Functions.
  Abs (), sqrt (), log (), exp (), ceill (). floor () pow () pow 10 (), random(), rand (), etc.
- String Functions.

```
Strlen () strlwr (), strupr (), strrev (), strncpy (), strecat (), strncat (),
```

etc.

Reference Books / Helping Material

- 1. C and C++ by Tariq Siddiqui.
- 2. C / C++ by Mohammad Khalid.
- 3. Let us C / C++ by Yashvant Kenetkar

# Introduction to Data base

#### (PAPER-I1)

Total Th Hrs80Total Th Mks100

**Objective** 

Total Pr Hrs40Total Pr. Mks50

# 1. Introduction to Data base

#### (a) Introduction

- (i) Data
- (ii) Information
- (iii) Meta Data
- (iv) Definition of Data Base
- (v) Advantages of Data Base
- (b) Data base Model
  - (i) Hierarchal Model
  - (ii) Network Model
  - (iii) Relation Model
- (C) Introduction to DBMS

#### Function of DBMS

#### 2. Entity Relationship Model

- (a) ERD
  - (i) Elements of ERD Model
  - (ii) E-R Diagram
- (b) Relationships

#### Degree of Relationship

(c) Attributes

- (i) Introduction to Attributes
- (ii) Types of Attributes

#### (c) Association

- (i) 1:1
- (ii) 1:M
- (iii) M:M

#### 3. Normalization

- (a) Anomalies
- (**b**) Function Dependency
- (c) First Normal Form
- (d) Second Normal Form
- (e) Third Normal Form

#### 4. SQL (Using MS SQL Server / Oracle/ My SQL)

- (a) DDL (Data Definition Language)
  - (i) CREATE Statement
  - (ii) ALTER Statement
  - (iii) DROP Statement
  - (iv) RENAME Statement
  - (v) TRUNCATE Statement
- (b) DML ( Data Manipulation Language)
  - (i) INSERT Statement
  - (ii) UPDATE Statement
  - (iii) DELETE Statement
- (c) DCL (Data Control Language)
  - (i) COMMIT Statement
  - (ii) ROLLBACK Statement
- (d) Data retrieval
  - (iv) SELECT Statement

- (v) WHERE Clause
- (vi) GROUP BY
- (vii) ORDER BY
- (viii) HAVIING Clause
- (e) Function Constraint
  - (ix) Concept of Key
  - (x) Primary Key, Secondary Key, Candidate Key, Alternate Key, Composite Key,
  - (xi) NOT NULL Constraint
  - (xii) UNIQUE Constraint
  - (xiii) Primary Key Constraint
  - (xiv) Foreign Key Constraint
  - (xv) Check Constraint
- (f) Function
  - (a) Character Function
  - (i) UPPER
  - (ii) LOWER
  - (iii) INITCAP
  - (iv) CONCAT
  - (v) SUBSTR
  - (vi) INSTR
  - (vii) LENGTH
  - (viii) LPAID
  - (ix) RPAID
  - (x) LTRIM
  - (xi) RTRIM
- (a) Numeric Function
  - (xvi) ROUND
  - (xvii) TRUNC
  - (xviii) MOD
  - (xix) COALESCE

- (b) Group Function
  - (xx) Min
  - (xxi) Max
  - (xxii) AVG
  - (xxiii) SUM
  - (xxiv) COUNT
  - (c) Conversion Function
    - (xxv) TO-CHAR
    - (xxvi) TO-NUMBER
    - (xxvii) TO-DATE
  - (d) Introduction Views and data dictionary

(xxviii)Cerate simple / complex view

- (xxix) Importance of view in multi user environment.
- (e) UNDERSTANDING/ Managing User Privileges and Roles
  - (i) Introduction to Multi user environment
  - (ii) Definition of Role and privileges
  - (xii) CREATE USER
  - (xiii) CREATE ROLE
  - (xiv) DROP USER
  - (xv) CRANT PRIVILEGE (DBA,ALL,SELECT, UPDATE, DELETE, INSERT)
  - (xvi) Revoking User Privileges and Roles.

#### **Reference Books / Helping Material**

- 1. Oracle DBA by Mohammad Khalid.
- 2. Modern Data base System by Thomas Carolli.
- 3. Data Base System By Raymond.
- 4. Introduction to Data Base By Imran Syed

# MS. Access (Version 2007 and onward)

#### (PAPER-I1)

Total Th Hrs40Total Th Mks50

Total Pr Hrs80Total Pr. Mks100

#### 1. DATABASE CONCEPTS

What is data and Database?

- 1.1 Why use Electronic Database?
- 1.2 Tables and Relationships
- 1.3 One to One
- 1.4 One to Many
- 1.5 Many to many

#### 1.3 Database Features

- 1.3.1 Attributes, Character Fielded Record, Tuples Files
- 1.3.2 Key, Primary Key Foreign Key, Composite Key
- 1.3.3 Referential Integrity
- 1.3.4 Use of Wild Cards

#### 1.4 MS- Access (Database)

Ms-Access Use Access, Window

Title Bar, Control Menu, Toolbar

Status Bar

- Database Window
- Object button

Data types

Start Access

Creating table, Table view

1.4.1 Create Table using in Design View Setting Primary Key, Saving table Close, exit add, delete record filed Resizing row column Freezing Hiding Column, Finding Data Repl data, Auto content, Spell checking Create Tales using in Wizard

- 1.4.2 Create relationship between Tables
- 1.4.3 Create Queries, define query, use adv Types of query Creating simple query Executing data Join, Difference between relations and join Extracting data Use of query wizard
- 1.4.4 Create Forms, What is form

Types of formCreate form by wizardCreate form of Design ViewAdd new record through formEdit record through formEditing optionList Box, Combo BoxAdding list Box and Combo BoxCheek Box and option buttonCommand Button1.4.5Vhat is report?Use of Report, Standard types reportAuto reportSaving and closing auto report

Create single table report

Create two table report

Create Report in design view

Print a report

# 1.4.6 Database Security

# **Reference Books / Helping Material.**

- 1. Business Information Technology –II by Mohammad Khalid.
- 2. Modern Data Base System By Thomas Canolli

# E-Commerce & Web Technology.

#### (PAPER-I1)

# Total Th Hrs80Total Th Mks100

Total Pr Hrs80Total Pr. Mks50

#### **OBJECTIVE**

This course provides complete knowledge of E-commerce with an intensive survey of. Technologies used to support all aspects of electronic Commerce & E-business requirements. This course provides a complete training of Dream viewer tool that. Provides a platform to implement these practices and enables students to make a. complete website that will help the students to move in a marked confidently.

#### **Course Contents:**

- *Introduction to E-Commerce.* 
  - The difference between e-commerce and e-business
  - Unique features of e-commerce technology
  - Types of e- commerce.
  - Element of a business model
  - Business- to consumer (B2C) business models
  - Business-to- business (B2B) business models
- Introduction to web Technologies
  - Fundamental of internet and www concepts.
  - Protocols (HTTP,FTP, IP,TCP,)
  - Domain Names ( com, edu, org, net, mil, sip)

#### HTML

#### **Introduction to HTML**

- Introduction
- A Text Editor
- A Web Browser

#### **Creating First HTML Document**

Html Tag, Head Tag, Title tag, Body Tag, Heading Paragraph Tag, Line Break Tag, Horizontal Rule Tag, Font Size

#### **Marking Stylish Pages**

Bold Tag, italic Tag, Underline Tag, Typewriter Tag, Big Tag, Small Tag, Emphasis Tag, Citation Tag, Strong Tag, Lists Unordered List, Order List

#### **Graphics in web page**

Image source Tag, Linking to local Files, to section of a page, Blink Tag, Marquee Tag,

#### **Address Fasters and Email Link**

Address Tag, Email Tag, Address and Email Link

#### Sniffing up text

Font Color Font Face Superscripts Subscripts Center Tag, Tables

#### Mata Tags and Frames

Mata Tag, Mate Refresh Tag, Meta Descriptor Tag, Frames Target Attribute No

Frames Tag

#### Forms

Adding Forms to Web Pages Form Tag Menu Select, Text Input Element Password input. Element text Area Input Element Radio Buttons Checks, Boxes Submit & Reset Button.

#### **Introduction to DHTML**

- Introduction to java script, form Validation, Basic, Languages Structure.
- Introduction to CSS 1 & CSS2.
- Introduction to XHTML.

#### **Dream Weaver**

- 1. Introduction.
- 2. Creating Web Project.
- **3.** Applying Html on Dream Waver.
- 4. CSS and its Implementation on Dream waver.
- 5. Creating Menus.
- **6.** Layouts.
- 7. Slicing.
- 8. Forms.
- 9. Tables.

10. Website Project.

Reference Book

1) Complete Reference

Web Reference

1) WWW.W3chools. Com

# **Reference Books / Helping Material**

1. E-Commerce by Mohammad Khalid.

2. E-Commerce for Managers by HOP Cock J.V.

3. Practical E-Commerce Thompson Warne.

# Graphic Design.

#### (PAPER-I1)

Total Th Hrs40Total Th Mks100

Total Pr Hrs80Total Pr. Mks50

# **Photoshop CS version**

#### **Exploring the Photoshop Environment**

- Explore the Photoshop interface
- Customize the Workspace
- Explore the Navigation Tools

#### Working with Image Areas

- Select Image Areas
- Save a Selection
- Modify a Selection

#### **Setting Color Space**

- Calibrate and Profile your Monitor
- Set a Working Color Space in Photoshop
- Convert Image from one Color Space to Another
- Manage Printing and Color

#### **Enhancing Image**

- Print Strokes on an Image
- Apply Filter Effects
- Convert an Image to Black and White
- Blend Layers
- Merge Layers and Flatten Image
- Convert Color Images to Grayscale

#### Working with Layers

• Create Layers

- Create Type Layers
- Transform Layers
- Alter Ttype Properties
- Apply Layer Styles
- Undo Previous Steps
- Arrange and Group Layers

#### Saving Images for Web and Print

- Save Images for Use in Print Application
- Save Images for the Web
- Save Images as PDF

#### Managing Assets with Adobe@ Bridge

- Explore Adobe Bridge
- Work with Adobe Bridge
- Work with Stacks and Filters in Adobe Bridge
- Apply Metadata and Keywords to Files
- Preparing Web Images
- Change Measurement Units
- Reduce File Size

#### **Creating Web Page Layouts**

- Simulate a Web Page
- Create Web Page Background
- Draw Editable Vector Shapes
- Create Effects
- Export a Web Page

#### **Enhancing Photographs**

- Retouch Photographs Using Photoshop Tools
- Create Patterns
- Create Swatches and Gradients
- Create a Custom Brush
- Create Custom Patterns

#### **Creating Special Effects**

- Preview Text Effects Using Layer Comps
- Warp an Image

#### **Automating Tasks**

- Create an Action
- Manage Action

#### **Adjusting RGB Color**

- Meet Color Correction Objective
- Locate Highlights Shadows and Neutral Areas
- Make Automatic Color and Contrast Adjustment
- Make Basic Curve Adjustment

#### **Sharpening Images**

- Apply Un-sharp Images
- Sharpen an Image

# ( COREL DRAW Version 9 and onward)

#### **BASICS:**

- Exploring the Corel DRAW Interface
- Setup Drawing Page
- Corel DRAW Basic
- Manage Workspaces
- Customizing the Command Bar
- Saving and Printing Drawing

#### **Overview of Course Covered**

#### Shapes and Lines :

- Basic Shapes
- Working With Paths
- Modify Paths
- Adding Text to Objects

#### **Overview of Course Covered**

#### Colors

- Fills and Outline
- Custom File
- Custom Strokes
- Drop Shadows
- Modify Outline
- Transform Objects

# **Overview of Course Covered**

#### Working with Text

- Format Artistic Text
- Fit Text to a Path
- Create Paragraph Text
- Wrap Paragraph Text
- Modify OCT Text
- Importing Image Text
- Insert Special Characters
- Text Effects

#### **Overview of Course Covered**

#### Working with Objects

- Modify Objects
- Add Graphics
- Add Clipart
- Spray Objects

#### Overview of Course Covered

#### **Styles, Templates Symbols**

- Working with text Styles
- Working with Templates

• Create Symbols

Overview of Course Covered

# Layers

- New Layers
- Manipulate Layer

Overview of Course Covered

#### **Bitmaps**

- Import and Adjust Bitmaps
- Trace Bitmaps

Overview of Course Covered

# **Advanced Printing Options**

Edit a Print Style Merge Text with Drawing

Overview of Course Covered

# In Page Course Outline

Toggle English / Urdu

Tools

Ribbon

Status Bar

Rulers

Document Area

Scroll Bars

Cursors

Text Box

Title Text Box

Picture Box

Graphic Box

Line

Guides Text Chain Master Page Entering Text **Character Attributes** Paragraph Attributes Hyphenation Borders Style sheets Text Wrap and Repel Inserting Page Number **Inserting Inline Pictures** Inserting Tables Importing unformatted and preformatted Text **Exporting Text** Find / Replace

#### **<u>Reference books / Helping Materials</u>**

- 1. Design Photoshop by Saeed H. Khawar.
- 2. Coral Draw by Mohammad Khalid.