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## Course Syllabus: Diploma in Information Technology

**Batch Name: DIT**

**Eligibility: 10th**

**Course Start: 1st of Every Month**

**Course Duration: 180Hours**

### Courses / Modules Paper

#### Module 1:

Paper 1	Paper 2
Fundamentals, MS-Office, Internet	Multimedia and IT Concepts

#### Module 1:

##### Paper 1: Fundamentals, MS-Office, Internet

#### 1: Fundamentals of Computer

- 1.1 Introduction to Computer
- 1.2 Block Diagram of Computer
- 1.3 Classification of Computer
- 1.4 Characteristics of computer
- 1.5 Generations of Computer
- 1.6 Uses of Computer
- 1.7 Input Devices
- 1.8 Output Devices
- 1.9 Computer Memory
- 1.10 Computer Hardware
- 1.11 Computer Software
- 1.12 Operating System

#### 2: Number System

- 2.1 Introduction
- 2.2 types of Number Systems
- 2.3 Conversion of Number system

#### 3 : Windows-7

- 3.1 Introduction to Windows
- 3.2 User Interface of Microsoft Window 2007
- 3.3 Changing Desktop Background
- 3.4 Changing Window Color
- 3.5 Changing Screen Saver
- 3.6 Changing Screen Resolution
- 3.7 Changing Data/Time
- 3.8 Making Empty Recycle Bin
- 3.9 Restoring Deleted File
- 3.10 Hard Drives
- 3.11 File and Folder Views
- 3.12 Copying File and Folder
- 3.13 Opening a File and Folder
- 3.14 Deleting a File and Folder
- 3.15 Renaming File and Folder
- 3.16 Working with Calculator
- 3.17 Working with Paint
- 3.18 Working with Notepad
- 3.19 Windows 7 vs Windows 10

#### Microsoft Word

##### 1: MS Word Home Tab

- 1.1 Introduction
- 1.2 Elements of MS Word
- 1.3 Explaining the Ribbons

##### 2: MS Word Insert Tab

- 2.1 Insert
- 2.2 Pages
- 2.3 Tables

- 2.4 Illustrations
- 2.5 Links
- 2.6 Headers and Footers
- 2.7 Text Group
- 2.8 Symbols

#### 3: MS Word Mailing

- 3.1 Create
- 3.2 Start Mail Merge

#### 4: MS Word References

- 4.1 Table of Contents
- 4.2 Footnotes
- 4.3 Citation and Bibliography
- 4.4 Caption
- 4.5 Index
- 4.6 Table of Authorities

#### 5: MS Word Review

- 5.1 Proofing
- 5.2 Comments
- 5.3 Tracking
- 5.4 Changes
- 5.5 Compare
- 5.6 Protect

#### 6: MS Word Views

- 6.1 Document View
- 6.2 Show/Hide
- 6.3 Zoom Group
- 6.4 Window
- 6.5 Macro

#### Microsoft Excel

##### 7: Introduction to Excel

- 7.1 Introduction
- 7.2 History of Excel
- 7.3 Uses of MS Excel
- 7.4 Important Components of Excel
- 7.5 Excel Window Overview
- 7.6 Font
- 7.7 Alignment
- 7.8 Clip Board
- 7.9 Number Formatting
- 7.10 Conditional Formatting
- 7.11 Format as Table
- 7.12 Cell Styles
- 7.13 Cells
- 7.14 Editing

##### 8: MS Excel: Data

- 8.1 Get External Data

- 8.2 Sort and Filter
- 8.3 Data Tools

#### 9: MS Excel: Insert

- 9.1 Tables
- 9.2 Illustrations
- 9.3 Charts
- 9.4 Links
- 9.5 Spark-Lines
- 9.6 Text Group

#### 10: MS Excel: Page Layout

- 10.1 Themes
- 10.2 Page Setup
- 10.3 Scale to Fit
- 10.4 Sheet Options
- 10.5 Arrange

#### 11: MS Excel: Review

- 11.1 Proofing
- 11.2 Comments
- 11.3 Changes

#### 12: MS Excel: View

- 12.1 Workbook Views
- 12.2 Show/Hide
- 12.3 Zoom
- 12.4 Window Group
- 12.5 Macros

#### Microsoft Power Point

##### 13: Power Point: Home

- 13.1 Starting MS Power Point
- 13.2 Elements of MS Power Point
- 13.3 Clip Board
- 13.4 Slides
- 13.5 Font Group
- 13.6 Paragraph
- 13.7 Drawing Groups
- 13.8 Editing Group

##### 14: Power Point: Insert

- 14.1 Insert: Introduction
- 14.2 Tables
- 14.3 Illustrations Group
- 14.4 Links
- 14.5 Text Group
- 14.6 Media Group

##### 15: Power Point: Design

- 15.1 Page Setup
- 15.2 Adding Themes to Presentation
- 15.3 Changing Slide Background
- 15.4 Variants

## 16: Power Point: Animation

- 16.1 Animations: Introduction
- 16.2 Timing Group
- 16.3 Add Custom Animation to Objects
- 16.4 Add Animations to Text
- 16.5 Custom Animation as Exact Effect
- 16.6 Motion Path under Custom Animation
- 16.7 Removing Animation
- 16.8 Transition to This Slide Tab
- 16.9 Advance slide

## 17: Power Point: Slide Show

- 17.1 Slide Show: Introduction
- 17.2 Slide Show Starting from the Beginning
- 17.3 Setup Group

## 18:Power Point: Review

- 18.1 Proofing
- 18.2 Comments
- 18.3 Protect Presentation

## 19:Power Point: View

- 19.1 View: Introduction
- 19.2 Presentation View Group
- 19.3 Show/Hide
- 19.4 Zoom
- 19.5 Color Tab
- 19.6 Window Tab
- 19.7 Macro

## Internet

### 1:Internet and Networking

- 1.1 Internet
- 1.2 Advantages & Disadvantages of Internet
- 1.3 Search Engines and Web Browsers
- 1.4 Website
- 1.5 Domain Name
- 1.6 E-Commerce
- 1.7 Email
- 1.8 Computer Security Threats
- 1.9 Networking
- 1.10 Network Topology

## Paper 2: Multimedia & IT Concepts

### 1: Introduction to Multimedia

- 1.1 What is Multimedia
  - Components of Multimedia
- 1.2 Multimedia and Hypermedia
- 1.3 World Wide Web
- 1.4 Overview of Multimedia Software tools
  - Music Sequencing and Notation
  - Digital Audio
  - Graphics and Image Editing
  - Video Editing

### 2: Multimedia Authoring and Tools

- 2.1 Multimedia Authoring
  - Multimedia Authoring Metaphores
  - Multimedia Production
  - Multimedia Presentation
  - Automatic Authoring
- 2.2 Useful Editing and Authoring Tools
  - Adobe Premeir
  - Macromedia Director
  - Macromedia Flash
  - Dreamweaver
- 2.3 VRML
  - Overview
  - Animation & Interaction
  - VRML Specifics

### 3: Graphics and Image Data Representation

- 3.1 Graphics / Image Data Types
  - 1- Bit Images
  - 8- Bit Grey Level Images
  - Image Data Types
  - 24- Bit Color Images
  - 8-Bit Color Images
- 3.2 Popular File Formats

### 4: Color in Image and Video

- 4.1 Color Science
- 4.2 Color Model in Images
  - RGB Color Model

- CMY Color Model
  - CMYK System
  - Transformation from RGB to CMY
- 4.3 Color Models in Videos
    - Video Color Transforms
    - YUV Color Model
    - YIQ Color Model
    - YCbCr Color Model

### 5: Fundamental Concepts in Video

- 5.1 Types of Video Signals
  - Component Video
  - Composite Video
  - S-Video
- 5.2 Analog Video
  - NTSC Video
  - PAL Video
  - SECAM Video
- 5.3 Digital Video
  - Chroma Sub Sampling
  - CCIR Standards for Digital Videos
  - High Definitions TV(HD TV)

### 6: Basics of Digital Audio

- 6.1 Digitization of Sound
  - What is Sound
  - Digitization
  - Nyquist Theorem
  - SNRSQNR Linear and Non-Linear
- Quantization
  - Audio Filtering
- 6.2 MIDI
  - MIDI Overview
  - Hardware Aspects of MIDI
  - Structure of MIDI Messages
- 6.3 Quantization and Transmission of Audio

### 7: Multimedia Data Compression

- 7.1 Lossless Expression and Algorithm
- 7.2 Lossy Compression Algorithms
- 7.3 Image Compression Standards
- 7.4 Basic Media Compression Techniques
- 7.5 Basic Audio Compression Techniques
- 7.6 MPEG Audio Compression

## IT Concepts

### 1: Introduction to IT Concepts

- 1.1 What is data & information
- 1.2 What is computer
- 1.3 How computer process information

### 2: Components of Computer System

- 2.1 Input Devices
- 2.2 Output Devices
- 2.3 Storage Units
- 2.4 Central Processing Unit (CPU)
- 2.5 Arithmetic & Logic Unit (ALU)
- 2.6 Control Unit (CU)

### 3: Types of Computer

- 3.1 Introduction to generation of computer
- 3.2 Super computer
- 3.3 Mainframe computer
- 3.4 Micro computer
- 3.5 Mini computer

### 4: Computer Hardware Components

- 4.1 Basics of computer hardware
- 4.2 Hardware Components
  - CPU
  - Motherboard

### 5: Types of Storage Devices

- 5.1 Introduction to storage devices
- 5.2 Types of storage devices
  - Hard drive
  - CD-ROM
  - DVD-ROM
  - Flash media
  - Removable hard drive

### 6: Types of Software

- 6.1 Introduction to software
- 6.2 Types of software
  - System software
  - Application software