

# Certificate in Information Technology (CIT)

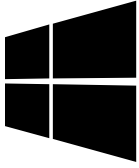
## INTRODUCTION TO INFORMATION TECHNOLOGY



1. **INTRODUCTION TO INFORMATION TECHNOLOGY**
2. **DEFINITION OF COMPUTER**
3. **TYPES OF COMPUTER**
  - ANALOG COMPUTER
  - DIGITAL COMPUTER
  - HYBRID COMPUTER
4. **CLASSIFICATION OF DIGITAL COMPUTER**
  - MAINFRAME
  - MINI
  - PERSONAL COMPUTER
  - SUPER COMPUTER
5. **INTRODUCTION TO ELEMENTS OF INFORMATION TECHNOLOGY**
  - SOFTWARE
  - HARDWARE
  - LIVEWARE
  - PROCEDURE
6. **SOFTWARE**
  - TYPES OF SOFTWARE
  - INTRODUCTION TO SYSTEM SOFTWARE
  - INTRODUCTION TO APPLICATION SOFTWARE
7. **HARDWARE**
  - TYPES OF COMPUTER HARDWARE DEVICES
  - INPUT DEVICE
  - OUTPUT DEVICE
8. **DATA STORAGE UNIT**
  - BITS
  - BYTES
  - KB (KILO BITE)
  - MB (MEGA BITE)
  - GB (GIGA BITE)
9. **COMPUTER STORAGE**
  - RAM, ROM
  - FLOPPY DISK
  - FLASH DRIVE
  - HARD-DISK
  - CD – ROM
  - ZIP DRIVE



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## MICROSOFT WINDOWS 8/10



- **WHAT IS WINDOWS 8/10?**

- BENEFITS OF WINDOWS 8/10
- THE WINDOWS 8/10 DESKTOP
- WHAT ARE DRIVES, FOLDERS AND FILES?
- THE START BUTTON
- THE TASKBAR
- THE RECYCLE BIN
- MY COMPUTER
- NETWORK NEIGHBORHOOD

- **WINDOW COMPONENTS & SELECTION TECHNIQUES**

- THE TITLE BAR
- THE SCROLL BARS
- MAXIMIZE, MINIMIZE, RESTORE AND CLOSE BUTTONS
- BORDERS
- THE CONTROL MENU ICON
- DIALOG BOXES
- TEXT BOXES
- LIST BOXES
- DROP DOWN LIST BOXES
- CHECK BOXES AND RADIO BUTTONS
- COMMAND BUTTONS
- TABS
- MOUSE SELECTION TECHNIQUES
- KEYBOARD SELECTION TECHNIQUES
- DRAG AND DROP TECHNIQUES

- **STARTING TO USE WINDOWS 8/10**

- WHAT IS THE START BUTTON?
- THE START MENU

- **THE START BUTTON - PROGRAMS**

- DOCUMENTS
- SETTINGS
- FIND
- HELP TOPICS
- RUN
- SHUT DOWN /SWITCH USER/ SIGN OUT /LOCK /SLEEP/ RESTART

- WHAT IS THE TASKBAR?
- ARRANGING YOUR DESKTOP ICONS

- **THE WINDOWS 8/10 ACCESSORIES**

- WHAT IS WORDPAD?
- WHAT IS PAINT?
- THE CALCULATOR
- THE CLOCK

- **THE EXPLORER, MY COMPUTER AND THE RECYCLE BIN**

- THE EXPLORER WINDOW
- FOLDER SELECTION TECHNIQUES
- SWITCHING DRIVES
- FOLDER CREATION
- MOVING OR COPYING FILES AND FOLDERS
- RENAMING FILES OR FOLDERS
- DELETING FILES OR FOLDERS
- THE RECYCLE BIN AND DELETED FILES
- CUSTOMIZING THE EXPLORER FILE DISPLAY
- FOLDER OPTIONS - GENERAL FOLDER
- FOLDER OPTIONS - VIEW FOLDER

- **PRINTING**

- WHAT IS A PRINTER DRIVER?
- INSTALLING A PRINTER DRIVER
- SETTING UP A PRINTER

- **CUSTOMIZING WINDOWS 8/10**

- CUSTOMIZING THE BACKGROUND
- SETTING A SCREEN SAVER
- SETTING DESKTOP WALLPAPER
- SETTING DESKTOP COLOR SCHEME
- WHAT IS THE CONTROL PANEL?
- SETTING THE TIME AND DATE
- CUSTOMIZING THE MOUSE AND KEYBOARD
- CHANGING YOUR WINDOWS 8/10 PASSWORD
- ADDING NEW DEVICES
- INSTALLING NEW APPLICATION PROGRAMS
- CREATING SHORTCUTS

- **SECURITY AND OPTIMIZATION ISSUES**

- DISK CLEANUP
- DISK DEFRAGMENTER
- SCANDISK

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- **THE INTERNET**

- CONNECTING TO THE INTERNET
- WHAT IS THE INTERNET?
- WHAT IS A WEB SERVER?
- THE MICROSOFT INTERNET EXPLORER WEB BROWSER
- THE INTERNET EXPLORER PROGRAM WINDOW

- **ADDRESSES, LINKS & DOWNLOADING AND EMAILS.**

- WEB SITES AND URLS
- USING A HYPER LINK ON A WEB PAGE TO JUMP TO OTHER PAGES OR SITES
- WHAT IS FTP?
- SEARCHING THE INTERNET
- WEB SEARCHING VIA MICROSOFT INTERNET EXPLORER
- SEARCHING THE INTERNET USING ALTA VISTA
- SEARCHING THE INTERNET USING YAHOO
- COMMONLY USED SEARCH ENGINES
- CREATING EMAIL ACCOUNT
- RECEIVING EMAILS
- CREATING & SENDING EMAILS
- ATTACH FILES

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## OFFICE AUTOMATION (MS OFFICE 2016)



- **STARTING WORD 2016 AND MANIPULATING FILES**
  - WHAT IS WORD 2016?
  - OPENING A FILE IN WORD 2016
  - SAVING A FILE AND USING 'SAVE AS'
  - CLOSING A WORD 2016 DOCUMENT
  - REVIEW QUESTIONS
- **STARTING TO USE WORD 2016**
  - THE OFFICE ASSISTANT
  - THE WORD 2016 SCREEN
  - MOVING THROUGH A WORD DOCUMENT
  - THE WORD 2016 MENU BAR AND DROP DOWN MENUS
  - WORD 2013 TOOLBARS
  - THE WORD 2016 STATUS BAR
  - ENTERING TEXT INTO A WORD DOCUMENT
  - WORD 2016 SELECTION TECHNIQUES
  - DELETING TEXT
  - DIFFERENT WORD 2016 VIEWS
  - UNDO AND REPEAT
  - HELP WITHIN WORD 2016
  - WORD 2016 KEYBOARD SHORTCUTS
- **EDITING TEXT**
  - INSERTING NEW TEXT
  - SELECTING TEXT WITH THE MOUSE OR KEYBOARD
  - REARRANGING TEXT WITH CUT, COPY, AND PASTE
  - FINDING AND REPLACING TEXT
  - UNDOING AND REDOING ACTIONS
- **FONT FORMATTING**
  - WHAT IS WORD 2016 FONT FORMATTING?
  - BOLD AND ITALICS
  - UNDERLINING TEXT
  - CHANGING CASE
  - DROP CAPS
  - TEXT EFFECTS
  - FONT FORMATTING - KEYBOARD SHORTCUTS
  - REVIEW QUESTIONS
- **PROOFING TOOLS WITHIN WORD 2016**
  - SPELL CHECKING
  - THE THESAURUS
- **USING THE CLIPBOARD**
  - WHAT IS THE CLIPBOARD?
  - COPY
  - CUT
  - PASTE
- **PARAGRAPH FORMATTING**
  - PARAGRAPH FORMATTING
  - PARAGRAPH FORMATTING SHORTCUTS
  - ALIGNING TEXT IN A DOCUMENT
  - INDENTING
  - BULLETS AND NUMBERING
- **PA PAGE FORMATTING**
  - WHAT IS PAGE FORMATTING?
  - PAGE MARGINS
  - PAGE SIZE AND ORIENTATION
  - PAGE BREAKS
  - HEADERS AND FOOTERS
  - NUMBERING PAGES
  - REVIEW QUESTIONS
- **WORKING WITH TABLE**
  - CREATING A TABLE
  - ADDING AND REMOVING COLUMNS AND ROWS
  - FORMATTING TABLE APPEARANCE
  - SORTING DATA IN A TABLE
  - MERGING AND SPLITTING CELLS
- **PRINTING**
  - PRINTING WITHIN WORD 2016
  - PRINT SETUP
  - PRINTING OPTIONS
  - PRINT PREVIEW
- **MAIL MERGE, ENVELOPES AND LABELS**
  - WHAT IS MAIL MERGING?
  - MAIL MERGING FORM LETTERS
  - REVIEW QUESTIONS

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## MICROSOFT EXCEL 2016



- **A FIRST LOOK AT EXCEL 2016**

- THE ADVANTAGES OF USING EXCEL 2016
- WHAT ARE WORKBOOKS AND WORKSHEETS?
- CREATING AND OPENING WORKBOOKS
- ENTERING DATA
- FURTHER DATA ENTRY TECHNIQUES
- AUTOCORRECT
- AUTOCOMPLETE
- USING PICK FROM LIST
- NAVIGATING IN THE WORKSHEET
- SELECTING ITEMS WITHIN EXCEL 2016
- INSERTING AND DELETING CELLS, ROWS AND COLUMNS
- SAVING WORKBOOKS
- MOVING BETWEEN WORKSHEETS
- CLOSING AN EXCEL 2016 WORKBOOK
- EXITING EXCEL 2016
- REVIEW QUESTIONS

- **A CLOSER LOOK AT THE EXCEL 2013 SCREEN**

- THE STANDARD TOOLBAR
- THE FORMATTING TOOLBAR
- SELECTING WORKSHEET VIEWS
- UNDO AND REPEAT
- REVIEW QUESTIONS

- **FORMATTING AND CUSTOMIZING DATA**

- FORMATTING OPTIONS WITHIN EXCEL 2016
- ALIGNMENT
- DATA INDENTATION AND ROTATION TO CENTER ITEMS IN A CELL/CELLS
- USING FONTS
- FORMATTING NUMBERS
- FORMATTING COLUMNS AND ROWS
- DELETING CELLS, FORMATS, OBJECTS AND WORKSHEETS
- ADDING, EDITING AND REMOVING BORDERS
- USING AUTOFORMAT
- REVIEW QUESTIONS

- **FORMULAS, FUNCTIONS AND NAMED RANGES**

- FORMULAS
- OPERATOR EVALUATION ORDER WITHIN EXCEL 2016

- USING THE SUM, SUMIF, IF, COUNT, COUNTIF, AVERAGE, MIN, MAX DATE, NOW, FEFT, RITHT AND TRIM, FUNCTION
- OTHER COMMONLY USED FUNCTIONS
- USING PASTE FUNCTION
- NAMING CELLS AND RANGES
- USING NAMED RANGES WITH FORMULAS

- **ADJUSTING WORKSHEET VIEWS**

- FREEZING AND UNFREEZING PANES
- SPLITTING SCREENS HORIZONTALLY AND VERTICALLY
- SHOWING NECESSARY INFORMATION WITH THE OUTLINING FEATURE

- **INTRODUCING CHARTS**

- CREATING A CHART
- MANIPULATING CHARTS
- CHANGING THE CHART TYPE
- REVIEW QUESTIONS

- **PRINTING**

- PAGE SETUP
- MARGINS
- CENTERING A REPORT ON THE PAGE
- HEADERS AND FOOTERS
- SHEET PRINTING OPTIONS
- CHOOSING A PRINTER AND CHANGING SETTINGS
- PRINTING A WORKSHEET
- PRINTING MULTIPLE FILES
- REVIEW QUESTIONS

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## MICROSOFT POWER POINT 2016



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- **WHAT IS POWERPOINT 2016?**
- **CREATING A SIMPLE TEXT SLIDE**
  - CREATING A NEW BLANK PRESENTATION
  - SELECTING A SLIDE LAYOUT
  - SIMPLE TEXT SLIDE
  - TO INSERT A NEW SLIDE
  - DELETING AND RE-ORDERING SLIDES WITHIN A PRESENTATION
  - THE VIEW ICONS
  - MANIPULATING SLIDES IN OUTLINE VIEW
  - CREATING NOTES FOR YOUR SLIDES
- **PICTURES AND BACKGROUNDS**
  - THE DRAWING TOOLBAR
  - USING THE DRAWING TOOLS
  - AUTOSHAPES
  - USING CLIPART
  - SELECTING OBJECTS
  - GROUPING AND UN-GROUPING OBJECTS
  - ALIGNING OBJECTS
  - MOVING OBJECTS FORWARDS AND BACKWARDS
  - APPLYING AND CREATING COLOR SCHEMES
  - ADDING A CUSTOM BACKGROUND
- **CREATING AND RUNNING A SLIDE SHOW**
  - WHAT IS A SLIDE SHOW?
  - NAVIGATION THROUGH A SLIDE SHOW
  - SLIDE SHOW TRANSITIONS
  - SLIDE SHOW TIMINGS
  - SLIDE SHOW ANNOTATIONS
  - HIDDEN SLIDES
  - WHAT ARE ANIMATION EFFECTS?
- **USING MASTERS**
  - WHAT ARE SLIDE MASTERS?
  - THE SLIDE MASTER
  - ADDING A FOOTER, DATE AND NUMBERING INFORMATION
  - MANIPULATING SLIDE MASTERS
- **PRINTING A PRESENTATION**
  - HOW DO YOU WANT TO PRINT YOUR PRESENTATION?
  - THE PRINT DIALOG BOX

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ADOBE PHOTOSHOP CC



- **INTRODUCTION TO ADOBE PHOTOSHOP**
  - WHAT IS PHOTOSHOP?
  - OPENING AND SAVING FILES
  - REVIEW QUESTIONS
- **PHOTOSHOP CS INTERFACE**
- **THE TOOLBOX**
  - SELECTION TOOLS
  - PAINTING TOOLS
  - PATH TOOLS
  - TYPE TOOL
  - SHAPE TOOLS
  - VIEWING TOOLS
  - THE TOOL OPTIONS BAR
  - REVIEW QUESTIONS
- **LAYERS**
  - USING LAYERS
  - WORKING WITH MULTIPLE LAYERS
- **COLOR**
  - COLOR MODELS
  - COLOR PALETTE
  - SWATCHES PALETTE
- **IMAGE MANIPULATION**
  - SELECTING COLORS
  - BLENDING
  - SMUDGING
  - FOCUSING
- **TYPE**
  - CHARACTER PALETTE
  - PARAGRAPH PALETTE
- **TYPE**
  - SHADOWS
  - GLOW EFFECT
  - BEVEL AND EMBOSS EFFECTS
  - WRAP TEXT
- **TRANSFORMATIONS**
  - RESIZING
  - ROTATING
  - FLIPPING
  - SELECTION TRANSFORMATIONS
  - LIQUIFY
- **IMPROVING IMAGES WITH FILTERS**
  - SHARPEN FILTERS
  - BLUR FILTERS
- **ALTERING IMAGES WITH FILTERS**
  - ARTISTIC FILTERS
  - BRUSH STROKE FILTERS
  - SKETCH FILTERS
  - DISTORT FILTERS



## BASIC HTML & EMBEDDED JQUERY



- **HTML INTRODUCTION**
  - WHAT IS HTML?
  - HTML STANDS FOR
  - WHAT IS HTML TAGS
  - WHAT ARE VERSIONS OF HTML?
  - HTML DEVELOPMENT ENVIRONMENTS
  - WRITING CODE WITH A TEXT EDITOR
  - PUBLISHING DOCUMENTS
- **HTML PAGE STRUCTURE**
  - DEFINES AN HTML DOCUMENT
  - DEFINES THE DOCUMENT'S BODY
  - DEFINES THE DOCUMENT'S HEAD ELEMENT
  - DEFINES HTML HEADINGS
  - DEFINES PAGE TITLE
  - DEFINES A HORIZONTAL LINE
- **HTML Paragraphs**
  - DEFINES A PARAGRAPH
  - INSERTS A SINGLE LINE BREAK
  - DEFINES PRE-FORMATTED TEXT
- **HTML FORMATING**
  - BOLD TEXT
  - IMPORTANT TEXT
  - ITALIC TEXT
  - EMPHASIZED TEXT
  - MARKED TEXT
  - SMALL TEXT
  - DELETED TEXT
  - INSERTED TEXT
  - SUBSCRIPTS
  - SUPERSCRIPTS
- **HTML SYTTLES**
  - BACKGROUND COLOR
  - TEXT COLORS
  - TEXT FONTS
  - TEXT SIZES
  - TEXT ALIGNMENT
- **HTML LINKS**
  - TEXT LINKS
    - TARGETING NEW WINDOWS
    - ANCHORS
- **HTML IMAGES**
  - INSERTING IMAGES
  - IMAGE LINKS
- **HTML LISTS**
  - UNORDERED LISTS
  - ORDERED LISTS
  - DEFINITION LIST
- **HTML TABLES**
  - CREATING TABLES
  - ATTRIBUTES
  - MERGING CELLS
- **EMBEDDED JQUERY**
  - WHAT IS JQUERY?
  - SEARCH AND INTEGRATE
  - JQUERY SLIDERS AND ANIMATIONS
  - IMPLEMENT JQUERY INTO YOUR WEBSITE





## ADOBE DREAMWEAVER CC



- **INTRODUCTION TO DREAMWEAVER**

- WHAT IS DREAMWEAVER?
- HTML - AN OVERVIEW

- **THE INTERFACE**

- THE TOOLBAR
- THE STATUS BAR & THE LAUNCHER
- THE PROPERTIES INSPECTOR
- THE PREFERENCES

- **THE TOOLS**

- FORM OBJECTS
- FRAMES OBJECTS
- HEAD OBJECTS
- INVISIBLE OBJECTS
- SPECIAL OBJECTS

- **SITE CONTROL**

- STORYBOARDING
- DEFINING A SITE
- FILE AND FOLDER MANAGEMENT
- THE PATH STRUCTURE
- CREATING A SITE MAP

- **WEB PAGE BASICS**

- CREATING A LOCAL SITE
- CREATING THE HOMEPAGE
- ADDING IMAGES
- ADDING TEXT
- ALIGNING IMAGES AND TEXT
- MODIFYING PAGE PROPERTIES
- ADDING META TAGS
- VIEWING THE CODE

- **LINKING**

- LINKING WITH POINT-TO-FILE
- BROWSING FOR FILES
- EMAIL LINKS
- NAMED ANCHORS
- LINKING USING IMAGES AND TEXT
- CHECKING THE LINKS

- **PUBLISHING THE SITE**

- PREVIEWING THE SITE PAGES
- REMOTE SITE
- TRANSFERRING FILES TO THE SERVER
- SYNCHRONIZING FILES

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## PROGRAMMING CONCEPT USING MICROSOFT VISUAL BASIC.NET



### INTRODUCTION TO PROGRAMMING

- WHAT IS SOFTWARE?
- WHAT IS PROGRAMMING?
- HIGH LEVEL & LOW LEVEL LANGUAGE
- TRANSLATOR & ITS TYPES(COMPILER, INTERPRETER, ASSEMBLER)
- STEPS OF PROGRAMMING
- TYPES OF ERRORS IN PROGRAMMING

### INTRODUCTION TO .NET TECHNOLOGY

- WHAT IS .NET FRAMEWORK
- DIFFERENT TYPES OF APPLICATIONS
- CONSOLE APPLICATION
- DESKTOP APPLICATION
- WEB/ INTERNET APPLICATION
- BASIC FEATURES OF VB.NET
- HOW TO INSTALL VB.NET

### FUNDAMENTAL CONCEPTS

- VARIABLES AND DATA TYPES
- SCOPE OF VARIABLES
- OPERATORS
  - ARITHMETICAL
  - RELATIONAL
  - LOGICAL
- DEFINE USING ARRAYS

### INTRODUCTION TO INTRINSIC CONTROLS

- TYPES OF CONTROLS
- BUTTON
- LABEL
- TEXT BOX
- LIST BOX
- COMBO BOX
- CHECK BOX
- RADIO BUTTON
- PICTURE BOX
- GROUP BOX
- TIMER
- CREATING MENUS (PULL DOWN ,POPUP MENUS)

### • CONDITIONAL STRUCTURES

- IF STATEMENTS
- IF...ELSE STATEMENTS
- NESTED IFS VS ELSEIF
- THE SELECT CASE STATEMENT

### • LOOP STRUCTURES

- FOR LOOP
- WHILE LOOPS
- DO LOOPS

### • BUILT FUNCTIONS

- TOUPPER()
- TRIM()
- CHARS()
- INSTR()
- SUBSTRING()
- EQUALS()
- INSERT()
- MATH FUNCTIONS
- MIN()
- MAX()
- SQR()
- POW()
- MATH.ROUND()
- LEFT()
- LEN()
- RIGHT()

### • INTRODUCTION TO DATABASE

- WHAT IS DATABASE?
- CREATING TABLES IN MICROSOFT ACCESS

### • INTRODUCTION TO METHODS FOR DATABASE CONNECTIVITY

- ADO.NET(ACTIVEX DATA OBJECT)

### DATABASE CONNECTIVITY USING ADO.NET

- ADDING ,DELETING, UPDATING AND SEARCHING RECORDS BY USING REFERENCE OF ADO.NET

### • LAB ASSIGNMENTS

- SIMPLE CALCULATOR
- FILE EXPLORER
- NOTEPAD (USING MICROSOFT ANY DATABASE ASSIGNMEN