

INSTITUTE OF HUMAN RESOURCES DEVELOPMENT

DIPLOMA IN DATA ENTRY TECHNIQUES & OFFICE AUTOMATION

(Two semesters)

Subjects of study and Scheme of Assessment (Scheme-2010)

First Semester

Code	Subject		No. of Hrs/Week		Minimum Marks			Maximum Marks		
	-	L	Р	W/P	S	Т	W/P	S	Т	
DDTOA101	Computer Fundamentals & Networking	3	-	40	20	75	100	50	150	
DDTOA102	Data Entry Techniques & Word Processing	3	-	40	20	75	100	50	150	
DDTOA103	English for Communication	3	-	40	20	75	100	50	150	
DDTOA104	Computer Lab-1 (Windows, Data Entry, Internet)	-	3	40	20	75	100	50	150	
DDTOA105	DDTOA105 Computer Lab-2 (Office Automation Packages)		3	40	20	75	100	50	150	
TOTAL MARKS							500	250	750	

Second Semester

Code	Code Subject No. of Hrs/Week Minimum Marks L P W/P S T							Maximum Marks		
			Τ	W/P	S	T				
DDTOA201	Web Technology	3	-	40	20	75	100	50	150	
DDTOA202	Database Applications	3	-	40	20	75	100	50	150	
DDTOA203	Desktop Publishing & Graphics	3	-	40	20	75	100	50	150	
DDTOA204	Computer Lab-3 (Linux,html,SQL,Database)		3	40	20	75	100	50	150	
DDTOA205	Computer Lab-4 (DTP, Graphics)	-	3	40	20	75	100	50	150	
-	Data Entry Speed Test	-	2	-	-	ı	-	-	-	
TOTAL MARKS							500	250	750	

* L - Lecture P - Practical W - Written S - Sessional T - Total

Note: Data Entry Speed Test Score should be in the format: No. of Keystrokes/Hour & Accuracy %

DDTOA101 COMPUTER FUNDAMENTALS & NETWORKING

MODULE 1. Introduction (6 hrs)

Block diagram - Functional units - Hardware - Software - Concept of Binary number system - Types of computers - Micro, Mini, Mainframe & Super Computers - Concept of machine, assembly & high level languages - ASCII code - UNICODE - Application of computers.

MODULE 2. Functional Units

(20 hrs)

Input Units - Keyboard - Mouse - Joystick - OCR - MICR -Barcode reader , Scanners - Operating principles. Output Units - Monitors - Printers - Impact & Non Impact types - DMP, Laser printers.

CPU- functions - concept of registers - Bus system - clock speed - Survey of current Intel & AMD Processors. Memory - RAM & ROM - Memory modules - types -DDR2 , DDR3 etc.

Secondary Storage devices - Hard Disk - concept of track, sector, cylinder, access time - partitioning, interface type - PATA, SATA, SCSI - Optical storage devices - CDROM, DVD, DVD-RW - comparison - USB flash drive.

IO ports -Serial, Parallel, PS/2, USB ports - Network Interface port - Switches.

MODULE 3. Operating System principles

(6 Hrs)

Boot strapping - POST - purpose of OS - OS as a resource manager - structure - Kernel & Shell - Types of OS - single user, multi-user, time-sharing, multitasking, network - Security needs - GUI

MODULE 4. PC Hardware (8 Hrs)

Introduction of PC components - Power supply unit & connectors - disk drives & interface types - Motherboard - Processor slot types, expansion slots, Memory slots - study of rear side & onboard connectors in motherboard - RTC, battery - BIOS setup - Concepts of display adapters - Memory modules.

MODULE 5. Computer Networking

(10 Hrs)

Concepts of Computer communications - need - serial & parallel data transmission - Transmission media - bounded and unbounded media - UTP cables, fiber optic, microwave & satellite link - concepts of networking of computers - need and advantages - concept of LANs & WANs - Concept of IP addresses - Networking hardware - NIC cards, switches, Modems - Proxy server.

Text: O' Level Computer Fundamentals - V. K. JAIN - BPB

Ref: 1. Computer Fundamentals - P K Sinha

- 2. Computer Fundamentals, Architecture & Organisation B Ram
- 3. Upgrading and Repairing PCs Que Publications
- 4. http://www.pctechguide.com
- 5. http://www.enotes.in/

DDTOA102 DATA ENTRY TECHNIQUES & WORD PROCESSING

Module 1. Windows GUI (6 Hrs)

Introduction to windows platform - mouse operations - concept of desktop, taskbar, Icons, utilities - Paint, Word pad - Icons - changing size, moving, enlarging, copying - files and folders - creation, copying, deleting - windows explorer - control panel.

Module 2. Windows Utilities

(6 Hrs)

Zip & unzip files - .rar files - virus scanning & removal - PDF reader and creator - Audio formats - video formats - Mpeg, AVI, WMV - Picture formats - .bmp, .gif, .jpeg - Media player - codex, skins.

Module 3. Internet (4 Hrs)

Using internet browser - e-mail - Chat- search engines - Instant messengers - download managers - proxy settings - setting up Internet connection - browser plug-ins - using webcam.

Module 4. Word processing

(16 Hrs)

Introduction to office automation - advantages of office automation.

Introduction - word menu - Tool bar - Document - creation, editing, saving, opening - Text - editing, deleting, inserting, selection, moving, copying, converting case, doing/undoing edits.

Formatting documents - paragraph formatting - applying styles, header and footer, line spacing - page layout - numbering pages - inserting section break - spell check - newspaper columns.

Tables - creation, editing, formatting, insertion, document with tables, Mail merge and template creation.

Module 5. Spreadsheets

(10 Hrs)

Electronic spreadsheet features - menu, cells, workbook, work sheets- Entering data, text, functions - selecting cell - ranges - saving worksheet - Editing worksheet data - copying, cut& paste - inserting, deleting rows, columns, cell ranges - find and replace data - spell check.

Formatting worksheet - changing column width, row height, aligning data - controlling text within a cell - changing font size, style - applying border, pattern styles - charts - types, titles & legends, saving, moving and copying between sheets.

Formulas, functions and Macros - Entering formulas - cell references - Date and time formulas - working with range names - entering functions - macros.

Printing - print preview - headers and footers - inserting, removing page break - working with data in a list - Adding and removing sub totals - sorting - hiding and displaying data.

Module 6. Presentation software

(8 Hrs)

Design - Create presentation with background, logo etc. - Insert pictures and images - change position or layout of pictures - Omit background graphics from a slide - Apply 3D effects, shadows, background fill colours, textures and patterns - Crop, resize, rotate, flip an image - Convert and image to greyscale or black and white format.

Charts and Graphs - Create and change a chart or graph - Create and edit a flowchart.

Multimedia - Insert sounds and movies with entry animation - Introduce animated objects, animate chart elements and dim bullet points.

Slide Show Setup - Insert navigation to slides - presentations and URL's - Apply and edit timings - Create a customized slide show.

Link Data-Link, modify and update text or data from a document or spreadsheet.

Ref : 1) http://www.nos.org/webdesign/winxp.pdf

- 2) http://www.karbosguide.com/books/winxpbeginner/chapter01.htm
- 3) http://commandwindows.com/index.html
- 4) http://getit.rutgers.edu/tutorials/
- 5) http://wiki.services.openoffice.org/wiki/Documentation/00o3_User_Guides/Chapters
- 6) http://www.gcflearnfree.org/computer/

DDTOA103 ENGLISH FOR COMMUNICATION

MODULE 1. FUNCTIONAL GRAMMER

(20 Hrs)

Sentence - Types of sentence Subject and Predicate Phrase and Clause Parts of Speech - with special emphasis on their usages. Comparison of adjectives Position of Adverbs Articles and their usages **Relative Pronouns Reflexive Pronouns** Subject - Verb agreement Tenses - different forms and usages **Question Tags** Voice - Active and Passive Direct and Indirect Speech Synthesis and Transformation of sentences Conditional Clauses Framing of questions The infinitive and the Gerund Common errors in written English Vocabulary

MODULE 2. Effective Communication

(10 Hrs)

Pronunciation --patterns of stress and intonation

Speaking: Greeting - introducing oneself - making requests - asking permission - giving instructions - making suggestions - agreeing and disagreeing - questioning - reporting - dealing with enquiries Telephonic conversation.

MODULE 3. (5 Hrs)

Writing reports Notes taking

MODULE 4. Letter Writing

(15 Hrs)

All the different kinds of letters - Personal and Official - Business letters - Government letters - company correspondence - Banking and insurance letters - application for appointments - letters to the press - trade enquires and replies there to - orders, execution / cancellation complaints, claims etc, - Agency letters - Letters of invitation / acceptance - Letters expressing regret - Letters of introduction.

Ref:

- 1. High School English Grammar and Composition Wren and Martin
- 2. Remedial English Grammar for Foreign students F. T Wood
- 3. Comparative English Grammar and Composition David Green

DDTOA104 COMPUTR LAB-1

(Windows, Data Entry, Internet)

Module 1: Windows (10 Hrs)

Bootstrapping - Starting Windows - Familiarization of Windows - files - folders - GUI features - Command shell - command prompt - simple commands.

Using wordpad, notepad, paintbrush, windows explorer

Burning CD/DVD, using flash drive, formatting, Copying Files

Module 2 : Data entry software (English)

(30 Hrs)

Practice on Data entry software - alphabetic, Numeric & alphanumeric data entry.

Module 3: Internet (10 Hrs)

Understanding web page - Using email - using attachments - Search engines - Search tips - Online documents - browsers - searching images - instant messengers.

Note: Practice on Module 2 should be continued during second semester also to achieve an average data entry speed between 6000-9000 Keystrokes per Hour with 90% or more accuracy in the skill test conducted along with the second semester practical tests.

DDTOA105 COMPUTR LAB-2

(Office Automation Packages)

Module 1: Word Processing

(20 Hrs)

Word processing packages - features - WORD Menu - Tool bar- windows parts, creating a document, saving, editing - formatting text - selection, Copying, Moving, Deleting, Inserting, Undo, Redo , News paper column - Formatting paragraph - Margins and gutters, applying styles, Find & Replace, headers, footers, line spacing, page layout, page numbering, inserting section break - spell check, Tables - creation, Editing, Formatting, Table insertion, Document with table - Mail merge, Template creation.

Converting doc file to pdf format, Manipulating downloaded web documents using word processor.

Module 2 : Spreadsheet

(20 Hrs)

Electronic spread sheet, features, Menus, Cells, Rows, Columns, Saving worksheet, Workbook - selecting cells, entering, copying formula, Autosum, Functions, Rearranging worksheet - moving, copying, deleting, sorting - Formatting Cells & cell content, find & replace, spell check, Insert / delete row, column, freezing, splitting, Hide / Unhide, cell protection - Drawing Graph, Types of graph, title, legends, saving, IF command, moving and copying between sheets- formula, functions and macros - entering formula - cell reference - date and time formulas - working with range names. Transferring spreadsheet information to a word document.

Module 3: Presentation (10 Hrs)

Starting presentation software - Menu bar, Title bar, status bar, Toolbar - Creating new presentation by using blank presentation, by using template - viewing presentation - slide - insertion, deletion - Enter, edit and create new text object - change and correct text, spell check - enhance a presentation - colour, style, colour schemes, add header and footer, add clip art pictures, graphic objects, other objects, align objects - set transition, Animate objects on a slide, add sound, adding links to a slide.

Lab Assignment: As part of Lab work, each student should prepare a presentation on a given topic, incorporating all necessary features, making use of internet resources.

DDTOA201 WEB TECHNOLOGY

Module 1. Internet (15 Hrs)

Review of Internet Basics - Email - Internet Access methods (Dial up, Broadband) - www - Internet address and Domain - URL - Web protocols (HTTP, FTP) - Browsers - Search engines - search techniques - downloading and saving web documents - managing web browser - plug-ins - down load managers - Instant messengers - torrent - ftp client software.

Introduction to Web Forms (Familiarisation of Online Forms like PSC application, E-grantz, erail.in, srailway.com etc.)

Concept of video conferencing - Blogs.

Module 2. HTML (15 Hrs)

Introduction to Hyper Text Mark-up Language - Concepts of HTML, Organisation of a Document in HTML- The structure of a document - The structure of a section - Substructure of other elements.

HTML tags - HTML Headings - Paragraphs - Links - Images - Elements, Attributes, Line Breaks - Text Formatting Tags - Links - Images - The Image Tag and the Src Attribute - Embedding video/audio in HTML - The Alt Attribute - Tables - Border Attribute - Headings in a Table - Lists - Unordered Lists, Ordered Lists.

HTML Forms and Input - The Form's Action Attribute and the Submit Button - Form Tags, Colours - Colour Values, Web Standard Colour Names - Frames - The Frameset Tag - The Frame Tag - Fonts - Font Attributes - Character Entities - Head - The Head Element - Information Inside the Head Element.

Module 3. LINUX (20 Hrs)

Introduction to Linux - Concept of open & free software - Familiarisation of Linux Desktop - concept of Live CD - Window managers(KDE,GENOME etc.) - concept of basic linux file System(/home,/etc,/boot,/dev etc).

Opening Files - Searching For Files - Managing Files and Folders - Writing CDs or DVDs - Audio & video utilities - software installation - Installing an application - Removing an application - Starting a Terminal - File and Directory Commands (cat,ls ,cp, rm, mkdir, cd, rmdir, passwd etc.) - File & directory permissions - chmod,chgrp & chown - mounting cdrom/flash drive - Survey of Linux Distributions.

Ref: 1) http://www.gcflearnfree.org/computer/topic.aspx?id=15

- 2) http://en.wikipedia.org/wiki/Internet
- 3) http://en.wikipedia.org/wiki/Html
- 4) http://en.wikipedia.org/wiki/Linux
- 5) http://www.ida.liu.se/~TDDI05/labs/LXB%20-%20Linux%20Basics.pdf
- 6) http://www.w3schools.com/html/default.asp

DDTOA202 DATABASE APPLICATIONS

Module 1. Introduction (15 Hrs)

Basic concepts of Data, field, record, database, database management system - components of database management system - DML Pre-compiler, DDL compiler, file manger, database manager, Query processor, database users - advantages and disadvantages of DBMS.

Data models - basic concepts of relational, network and hierarchical models. Relational structure - tables(relations), row, attributes, domain, cardinality, degree, keys(primary key, foreignkey, candidate key.

Module 2. SQL (20 Hrs)

Data types, basic operations - designing a database, creating tables - create, alter, drop, insert, select, update. Joining tables, subquery, views - creating and managing views, combining multiple queries - union, intersect, minus. Operators, functions.

Module 3. MS Access/OpenOffice Base

(15 Hrs)

Data types - creating tables - set relation ship - filed properties - queries - type of queries - select query - parameter, cross tab, total, make table, append, update, delete - starting query.

Forms - designing forms - auto from - creating sub forms - designing our own forms.

Report & macros - creating report - creating macros - creating automated macros.

Ref: 1) An introduction to database management systems - korth

- 2) Microsoft Office 2003: Beginners guide Laurie Ann Ulrich
- 3) http://www.sqlcourse.com/
- 4) http://www.w3schools.com/sql/default.asp
- 5) http://agtr.ilri.cgiar.org/Compendia/Doc/Basic%20Introduction%20to%20MS-Access.pdf
- 6) http://library.med.utah.edu/ed/eduservices/handouts/access_web/accesstutorial_basics.pdf
- 7) http://documentation.openoffice.org/manuals/oooauthors2/0110GS-GettingStartedWithBase.pdf
- 8) http://inpics.net/base.html

DDTOA203 DESKTOP PUBLISHING & GRAPHICS

Module 1. Desktop Publishing

(20Hrs)

Desktop Publishing Software and its functionality. Understanding design principles and terms used in the printing industry. Working with publication, new publication, opening a publication, Drawing tools- grouping and ungrouping, control palette, power pasting, paste multiple,- Importing Graphics, place commands, graphic file formats, cropping tools, Text tools- adding, changing and manipulating text, transformation-skewing, reflecting, Importing text-placing text, threaded text, master pages, multiple master pages, Character specifications, Paragraph specifications, Widows and orphans, Column and page breaks, hyphenation, text wrap

Module 2. Desktop Publishing

(15Hrs)

Story Editor, Spelling check, Style Sheets- paragraph styles, using styles, changing a style, the book command, table of contents, rebuilding the table of content, Frames- frame tools, adding text content to a file, Hyperlinks and HTMLs, starting a web document, creating an anchor, importing URLs, Layers- the layers palette, creating a new layer, Utilities, the library palette, sorting pages, create Pdf.

Module 3. Image Editing Software

(15Hrs)

Introduction, Image manipulation, Text manipulation, Patterns and textures.

Tools and palettes / Document windows , Image modes and file formats / Image acquisition- flatbed and transparency scanning , Image adjustments, rubber stamp tool, Layers, Effects, Blending Modes, Masks, Channel operations, Shapes, pen tool, Easy 3D text / Textured text / Type-masking photos / Recess, emboss and drop shadows

Ref: 1. Page Maker 7: The Complete Reference - Carolyn M. Connally

- 2. Pager Maker in easy steps Scott Basham
- 3. http://www.cam.ac.uk/cs/docs/leaflets/m440/m440.pdf
- 4. http://www.bgsu.edu/downloads/cio/file17749.pdf
- 5. http://manufaxure.com/paul/class/gimp-intro/gimp-course.pdf
- 6. http://ds062.k12.sd.us/kingsahlimon/gimpclass/gimptutorial.pdf

DDTOA204 COMPUTR LAB-3

(Linux, html, SQL, Database)

Part A - Linux, html & WEB

Module 1. HTML (10 Hrs)

15 HTML experiments covering all HTML tags.

Module 2. LINUX (5 Hrs)

Linux : Demonstration of Linux , Live CD of Linux - Login & logout - Managing desktop - Managing files & folders - Searching files - Text editors - CD/DVD burn utilities - audio/video players.

Module 3. WEB (10 Hrs)

Accessing Internet - web browsers(Firefox,Chrome,IE etc) - managing web browser options - email - Search engines - search techniques - downloading and saving web document - plug-ins - down load managers - Instant messengers - torrent - Ftp client software.

Introduction to Web Forms(Familiarisation of Online Forms like PSC application, E-grantz, erail.in, srailway.com etc).

Concept of video conferencing, Creating Blogs.

Demonstration of Hosting a web page.

Part B - MS Access & SQL

Module 4. SQL (10 Hrs)

SQL- Creating table, modify table - alter, deleting table - drop, insert data into table - insert, list the fields in a table - describe, list the records in a table - select, change the data stored in a table - update, delete rows - delete, creating and managing views.

Module 5. ACCESS/BASE (15 Hrs)

creating tables - set relationship - filed properties - queries - type of queries - select query - parameter, cross tab, total, make table, append, update, delete - starting query.

Forms - designing forms - auto from - creating sub forms - designing our own forms.

Report & macros - creating report - creating macros - creating automated macros.

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Note: Lab record should contain minimum 15 programs (Minimum 3 programs from each module given above)

DDTOA205 COMPUTR LAB-4

(DTP, Graphics, Malayalam, Open Office)

Module1. Desktop Publishing Software

(15Hrs)

Working with publication - new publication - opening a publication - Drawing tools - grouping and ungrouping, control palette, power pasting, paste multiple - Importing Graphics, place commands - graphic file formats - cropping tools, Text tools - adding, changing and manipulating text - transformation - skewing, reflecting, Importing text - placing text, threaded text, master pages, multiple master pages - Character specifications - Paragraph specifications - Widows and orphans - Column and page breaks - hyphenation - text wrap - Story Editor - Spelling check - Style Sheets - paragraph styles, using styles, changing a style - the book command - table of contents - rebuilding the table of content - Frames - frame tools, adding text content to a file. Hyperlinks and HTMLs - starting a web document - creating an anchor - importing URLs, Layers - the layers palette, creating a new layer, Utilities, the library palette - sorting pages - create Pdf.

Module2. Malayalam DTP

(5Hrs)

Importing and placing Malayalam text - fonts and typefaces - images to client specifications including appropriate point sizes - headings, leading, alignments, ascenders and descenders, hyphenation rules - font specifications - line spacing - alignments, base lines - image cropping to designed sizes - borders and shading, boxes, rules, page numbering.

Setting typeface styles - creating and amending paragraph styles.

Setting equal columns - widows and orphans - drop capitals - bulleting lists.

Module 3. Image Editing

(15 Hrs)

Familiarisation of GIMP/Photoshop software. Image manipulation - Text manipulation - Patterns and textures. Learn to touch up your digitized images with software - Image modes and file formats - Image acquisition - flatbed and transparency scanning - Image adjustments, rubber stamp tool.

Learn to manage the Layer feature , Mask feature - Using Shapes - pen tool, Easy 3D text - Textured text - Type - masking photos - Recess, emboss and drop shadows to create image

Module 4. Open Office package.

(15 Hrs)

Writer: Opening and Editing a Document - Formatting a Document - Document Views - Spell Checking - Page Formatting - Headers&Footers - Line Spacing - Tab, Indentations - Creating Tables - Paragraph Alignment - Bullets and Numbering - Borders and Shading - Printing a Document.

Calc: Workbook - Editing and Formatting Cells - Creating Formulas - Entering and Using Functions

Impress: Creating & Inserting Slides - Formatting Slides - Slide Design - Slide Show Customization - Slide Animation

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Note: Lab record should contain minimum 15 programs (Minimum 3 programs from each module given above.

[scheme 2010]

Question paper pattern

Duration of Exam. : 3 Hrs.

Maximum marks : 100

Part - A Multiple choice / fill in the blanks type questions

Part - B Short Answer type Questions with answer size up to 1 page per question.

Part - C Descriptive type Questions with answer size up to 2 to 3 pages per question.

Marks Distribution

Part	No. of questions.	Need to be answered	Marks/Question	Total
A	20	20	1	20
В	12	8	5	40
С	8	4	10	40
To	otal	32		100

Remarks:

1. Each part should cover questions from each module in the syllabus.

2. The level of difficulty shall be as follows

i) Easy Questions: 30% -40%

ii) Intermediate level to difficult: 30% -40%

iii) Difficult questions : 20% -30%

- 3. The question paper setters must prepare and submit the question papers as per the following guidelines.
 - Question paper must be designed and prepared to fit in an A4 size paper with one inch margin on all four sides.
 - ii) Prepare the Question in MS-Word/Open office-Writer document format. Use "TimesNewRoman" font with size 10 only. Align text to both left and right margins.
 - iii) Please leave 5 cm. free area at the top of the front page of each question paper to place examination details/Question paper header by the examination department.
 - iv) Avoid placing 1 or 2 questions in the last part in a fresh page, unless it is absolutely necessary. In such case, try to accommodate above questions in the previous page(s) by adjusting top/bottom margins and line spacing, if possible, to reduce printing expenses.
 - v) Specify marks for each question/part clearly.
 - vi) Clearly specify the number of questions to be answered for each Part.
 - vii) Confirm that no questions in part B is repeated in Part C also.
 - viii) Avoid repeating questions in Part C from the immediate previous examination.
 - ix) Key for evaluation must be prepared and enclosed in a separate cover and should be submitted along with the question paper set. Key for evaluation must specify evaluation guidelines for each part in the question paper, otherwise the key prepared will be treated as incomplete.
 - x) Submit Question paper in Laser print out form only. Hand written and printed in poor quality printers is not acceptable.

[scheme 2010]

Scheme for Internal Evaluation.

1. For Theory Papers: Weightage

a). Average of minimum Two test papers
b). Average of minimum Two Assignments
c). Score for Class Attendance.
d). Overall performance in the class.
40%
10%
10%

2. For Practical Papers: Weightage

a). Average of minimum Two Lab tests
b). Maintenance of Lab record
c). Score for Lab Attendance.
d). Overall performance in the Lab.
50 %
30%
10%
10%

3. Teachers shall submit Mark list for Internal Evaluation to the Head of Institution in the following format.

Semester: Subject:

SI no.	Regno.	Name	a.Test	b.Assignment	c.Attendance	d.Performance	Internal marks

4. Head of Institution/Coordinator shall forward Internal marks to the Examination Department in the following format only.

Centre:

Semester:

SI no.	Regno.	Name	DDTOA101 50	DDTOA102 50	DDTOA103 50	DDTOA104 50	DDTOA105 50

5. The score for Data entry speed test should be submitted in the following format.

SI no.	Regno.	Name	No. Key strokes /Hr.	Accuracy %

Data entry speed test shall be conducted along with the second semester practical exams. Each student shall be given 3 chances for the speed test. The best score among 3 tests shall be submitted as the final score.

6. Internal evaluation marks must be published in the notice board at least one week before the commencement of theory examinations after getting approval from the Head of Institution/Coordinator.