



INSTITUTE OF HUMAN RESOURCES DEVELOPMENT

Praja'e Towers, Vazhuthacaud, Thiruvananthapuram, Kerala, India. Pin695 014
<http://www.ihrd.ac.in>

DIPLOMA IN DATA ENTRY TECHNIQUES & OFFICE AUTOMATION

(Two semesters)

Scheme & Syllabus 2018

(Effective from January 2018 admission)



INSTITUTE OF HUMAN RESOURCES DEVELOPMENT

DIPLOMA IN DATA ENTRY TECHNIQUES & OFFICE AUTOMATION

(Two semesters)

**Subjects of study and Scheme of Assessment
(Scheme-2018)**

First Semester

Subject Code	Subject Name	No. of Hrs/Week		Minimum Marks			Maximum Marks		
		T	P	W/P	CE	T	W/P	CE	T
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	Functional English	3	-	40	20	75	100	50	150
DDTOA104	Lab Practice - 1 (Windows, Data Entry, Internet)	-	3	40	20	75	100	50	150
DDTOA105	Lab Practice - 2 (Office Automation Packages)	-	3	40	20	75	100	50	150
Duration: Total 250 Hrs.		9	6	TOTAL MARKS			500	250	750

Second Semester

Subject Code	Subject Name	No. of Hrs/Week		Minimum Marks			Maximum Marks		
		T	P	W/P	CE	T	W/P	CE	T
DDTOA201	Web Technology & Android Applications	3	-	40	20	75	100	50	150
DDTOA202	Financial Accounting with Tally	3	-	40	20	75	100	50	150
DDTOA203	Desktop Publishing & Graphics	3	-	40	20	75	100	50	150
DDTOA204	Lab Practice - 3 (Linux, Internet, Tally)	-	3	40	20	75	100	50	150
DDTOA205	Lab Practice - 4 (DTP, Graphics, Libre Office)	-	3	40	20	75	100	50	150
Skill Test**	Data Entry Speed Test	-	-	-	-	-	-	-	-
Duration: Total 250 Hrs.		9	6	TOTAL MARKS			500	250	750

* T- Theory P - Practical W - Written CE-Continuous Evaluation T – Total

** A Data entry speed skill test will be conducted at the end of second semester and the skill score obtained will be certified in the second semester Mark list for reference. Candidates shall try to achieve industry standard performance in data entry speed.(Recommended skill score is 6000 - 9000 key depressions per hour with minimum 90% accuracy in alpha-numeric data entry in English.)

DDTOA101 COMPUTER FUNDAMENTALS & NETWORKING

MODULE 1. Introduction

(6 hrs)

Block diagram - Functional units – Hardware – Software - Types of computers - Micro, Mini, Mainframe & Super Computers -Classification of computers - Palm top, lap top, Desktop,work station, server 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 – Projectors, Printers - Impact& Non Impact types – DMP, Inkjet & Laser printers.

CPU- functions – concept of registers – Bus system – clock speed – Survey of current Intel & AMD Processors.
Memory – RAM & ROM – Memory modules – types –DDR3 , DDR4 etc.

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

IO ports –Serial, Parallel, PS/2, USB ports,HDMI,VGA – Network Interface port .

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 –Software licensing –Open source& proprietary - network – Security needs – GUI

Introduction to Ubuntu Linux& basic commands.

MODULE 4. PC Hardware

(8 Hrs)

Introduction of PC components – Power supply unit & connectors – disk drives - Motherboard – Processors - 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 - concepts of networking of computers - need and advantages - concept of LANs & WANs - Concept of IP addresses – Networking hardware - NIC cards, switches, Modems – Proxy server- Wifi, Hotspot, access point,DNS, MAC Address - IP address.

References :

1. Computer Fundamentals – P K Sinha
2. Computer Fundamentals, Architecture & Organisation – B Ram
3. Upgrading and Repairing PCs – Que Publications

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[Scheme 2018]

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 - codec .

Module 3. Internet

(8Hrs)

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. Data Entry Techniques

(5 Hrs)

Data entry basics – alphabetic, numeric, alphanumeric, - Keyboard layout – phonetic, inscript – Malayalam keyboard layout - Auto correction features –form entry - uploading images in websites – CAPTCHA

Module 5.Word Processing

(20 Hrs)

Introduction to office automation – advantages of office automation.

Introduction - word processor 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 6. Presentation software

(5 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 grayscale 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. Office 2007 All-in-One Desk Reference For Dummies
2. https://help.libreoffice.org/Main_Page

DDTOA103 FUNCTIONAL ENGLISH

MODULE 1. FUNDAMENTALS OF GRAMMER

(15 Hrs)

Verbal communication , Non-verbal communication

Body language , Haptics , Proxemies , Sign language, Para language. Tenses - different forms and usages

Punctuations, Common errors in written english , Vocabulary-

Sentence- Types of sentence - Subject and predicate - Phrase and clause - parts of speech - Articles and their usage -

Relative pronouns - Reflective pronouns - Subject - verb agreement- Voice- Active and passive - Direct and indirect speech

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

Reading skills - skills to read and understand a passage. Telephonic conversation.

MODULE 3.Reports writing

(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/regret/introduction etc.

MODULE 5. Using email

(5 Hrs)

Email- creating/using email accounts – send/read/delete/forward/reply emails – attachments – searching emails – organizing emails - email etiquette .

References :

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

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[Scheme 2018]

DDTOA104 LAB PRACTICE - 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, paint, file explorer

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

Module 2 : Data entry Practice(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.

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DDTOA105 LAB PRACTICE - 2

(Office Automation Packages)

Module 1 : Word Processing

(25 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 : 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.

Module 3. Spreadsheets

(15Hrs)

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.

DDTOA201 WEB TECHNOLOGY & ANDROID APPLICATIONS

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 - download managers - Instant messengers – torrent - ftp client software.

Introduction to Web Forms (Familiarisation of Online Forms like PSC application, E-grantz, irctc.co.in, srailway.com etc.) Concept of video conferencing - Blogs.

Module 2. HTML

(5 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.

Module 3. LINUX

(20 Hrs)

Introduction to Linux - Concept of open & free software - Familiarisation of Linux Desktop - concept of Live CD - Window managers(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.

Module 4 ANDROID APPLICATIONS

(10 hrs)

Introduction to Android- versions-history- Googleplay store- installing android applications. familiarization of various android apps-play store.

Ref:

1. HTML 5 Unleashed Simon Sarris
2. <https://www.tutorialspoint.com/ubuntu/index.htm>
3. Pro Android 4, Satya Komatineni & Dave MacLean, Apress.

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DDTOA202 FINANCIAL ACCOUNTING WITH TALLY

Module 1. Financial accounting

Introduction to Accounting: Accounting basis and terms - Manual accounting - Computerized accounting fundamentals. (4Hrs)

Module 2 Accounting with Tally : Introduction to Tally - Tally interface - f11 features - f12 configuration - Company creation - Accounting groups - Accounting ledgers - Accounting vouchers - Vouchers entry. Inventory Management with Tally - Stock groups - Stock items - Stock category - Unit of measures - Godown inventory vouchers (Pure inventory and inventory vouchers) (20Hrs)

Module 3 Integration of Accounting with Inventory : Bill wise details - Invoicing - Voucher entry - Cost centre - Cost category - Budget and control - Bank reconciliation - Interest calculation - Order processing - Stock valuation methods - Reorder levels - Tracking numbers - Bill of material - Inventory ageing. Tax Application in Tally - Introduction to GST - Input tax credit- CGST& SGST introduction (12Hrs)

Module 4 Accounting and Inventory Reports - Trading, Profit and loss A/c - Balance Sheet - Ledgers - Cost Centre and budget reports - Cash book and bank book - Inventory reports - Decision supporting tools - Ratio analysis - Cash flows - Fund flow - Budgeting system - Printing of reports - Voucher and bill printing etc. (14Hrs)

Ref :

1) Tally .ERP 9 In Simple Steps, Kogent Learning Solutions Inc. ISBN 9789350040539

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DDTOA203 DESKTOP PUBLISHING & GRAPHICS

Module 1. Introduction to 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. Editing Documents

(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. Comdex 9-in-1 DTP Course Kit by Vikas Gupta
2.. <https://www.gimp.org/tutorials/>

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[Scheme 2018]

DDTOA204 LAB PRACTICE - 3

(Linux, Internet, Tally)

Module 1. LINUX & HTML

(15 Hrs)

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

15 HTML experiments covering essential HTML tags

Module 2. Internet Skills

(5 Hrs)

Accessing Internet - web browsers(Firefox,Chrome,IEetc) - managing web browser options – email - Search engines - search techniques - downloading and saving web document – plug-ins - download 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.

Module 3. Tally.ERP9 based Accounting

(25 Hrs)

Familiarisation of tally menus- configuring tally – Ledger creation/editing – Voucher Entry – corrections –Voucher types – report generation - Printing - Bank reconciliation.

Module 4. ANDROID APPLICATIONS (Demo)

(5 hrs)

Google play store- installing android applications. familiarization of various android apps- uninstall/update apps.

Using – xender, file transfer using Bluetooth - Tethering - hotspots – Screen casting – scanning QR Code – Scanning documents to .PDF format.

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

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DDTOA205 LAB PRACTICE - 4

(DTP, Graphics, Libre 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.

Practice on popular Open Source DTP software.

Module2. Malayalam DTP

(5Hrs)

Enabling Malayalam in Ubuntu & Windows - 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 using GIMP

(15 Hrs)

Image manipulation –GIMP - 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 source Office packages.

(15 Hrs)

Libre office packages.

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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[scheme 2018]

DIPLOMA IN DATA ENTRY TECHNIQUES & OFFICE AUTOMATION

1. 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
B	12	8	5	40
C	8	4	10	40
Total		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.
 - a. Question paper must be designed and prepared to fit in an A4 size paper with one inch margin on all four sides.
 - b. Prepare the Question in MS-Word/Open office-Write document format. Use only "TimesNewRoman" font with size 10. Align text to both left and right margins.
 - c. 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.
 - d. 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. This will reduce printing expenses.
 - e. Specify marks for each question/part clearly.
 - f. Clearly specify the number of questions to be answered for each Part.
 - g. Confirm that no questions in part B is repeated in Part C also.
 - h. Avoid repeating questions in Part C from the immediate previous examination.
 - i. 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.
 - j. Submit Question paper in Laser print out form only. Hand written and printed in poor quality printers is not acceptable.

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DIPLOMA IN DATA ENTRY TECHNIQUES & OFFICE AUTOMATION

2. Scheme for Continuous Evaluation.(CE)

1. For Theory Papers : Weightage
- a). Average of minimum Two test papers : 30%
 - b). Average of minimum Two Assignments : 30%
 - c). Score for Class Attendance. : 20%
 - d). Overall performance in the class. : 20%

2. For Practical Papers : Weightage
- a). Average of minimum Two Lab tests : 30%
 - b). Average of minimum Two Lab Assignments : 30%
 - c). Score for Lab Attendance. : 20%
 - d). Overall performance in the Lab. : 20%

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

Subject:

Sl no.	Regno.	Name	a.Test	b.Assignment	c.Attendance	d.Performance	Total

4. Head of Institution/Co-ordinator shall forward Continuous evaluation marks to the Examination Department in the following format only.

Centre:

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

5. Continuous evaluation(CE) 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/Co-ordinator.

Thiruvananthapuram
February 21, 2018

Sd/-
Director