(15)

SYLLABUS FOR

DESKTOP PUBLISHING OPERATOR

UNDER

CRAFTSMEN TRAINING SCHEME

As approved by
GOVERNMENT OF INDIA

In consultation with
THE NATIONAL COUNCIL FOR
VOCATIONAL TRAINING

2004
(Revised)

JUSTIFICATION FOR REVISION OF COURSE CONTENTS AND LIST OF TOOLS & EQUIPMENTS IN RESPECT OF "DESK TOP PUBLISHING OPERATOR" TRADE IN THE PROPOSED REVISED SYLLABUS.

Justification for additional new topics and increased quantity of Tools, Equipments and furnitures etc. are given below :-

In view of recent/rapid development in the field of Computer and Software technology, it is considered essential to prepare trainees according to demand of Industry / market which enable the passed out trainees to get better opportunity and prospects in related fields. So, it is proposed to update / revise course contents and required tools, equipments & furnitrues in the existing syllabus and list of T&E, furniture etc.

a) **Computer & Peripherals:-** To provide more practice/practical training to the trainees on computer, it is solicited to enhancing the total number of computers (IBM) from 4 to 9 for one unit of DTP Trade that means two Trainees for each computer, with 20% supernumeraries, should be included in the syllabus.

b) **Pagination Software** *i.e.,* Quark Express should be included in syllabus as this is very familiar and has immense demand in present Publishing / Newspaper Houses.

c) **Graphic Designing Software** i.e., CorelDraw and Adobe Illustrator should be included in syllabus as cover design, advertisements, magazine cover, poster are very much required in the present seenario of market/industry.

d) **Photo Editing Software** i.e., Adobe Photoshop /any photo editing Software should be included as this is essential for DTP Operator for making cutouts and changes / editing in picture/photo, as it has immense demand in market/industry.

e) **Bilingual Software:-** Hindi/any other regional language should be included as per local market demand.

General information

1.Name of the Trade	: Desk Top Publising Operator
2.No. of trainees for one unit	: 20
3.Duration of Training	: One Year
4.Qualification Essential	: I) Passed class XII under 10+2 system.
	II) Typing speed 30 w.p.m. in English.
Desirable	: Typing speed of 30 w.p.m / in Regional Language

THEORY	PRACTICAL
Week No. : 1-2	
UNIT-1: FUNDAMENTAL & BASICS OF COMPUTER	
FUNDAMENTALS :	**FUNDAMENTALS :**
✦ Introduction to computers, Hardware & Software.	✦ Introduction of personal computer & its applications,
✦ Computer applications.	✦ Keyboard practice with emphasis on accuracy and speed.
✦ Input devices : Keyboard, Mouse OCR, OMR, MICR, Digitizer, Scanner etc.	✦ Practice to store & retrieve informations through storage media.
✦ Storage Media- Magnetic Disk, Hard Disk, Floopy Disk, CD, etc.	✦ Use of system & application Software
✦ Output Devices: Hard copy devices & Soft copy devices.	
Types of Softwares:	
✦ System & Application Software.	
Concepts :	
✦ Bits, Bytes, RAM, ROM, ASCII etc.	
Week No. : 3-4	
OPERATING SYSTEMS:	**OPERATING SYSTEMS:**
DOS :	**DOS :**
✦ Introduction & version	✦ Introduction & version.
✦ Familiarization with various commands/tools.	✦ Learning & Practice of Disk Operating System (DOS).
MS Windows :	✦ Familiarization with various commands/tools.
✦ Introduction & Version	**MS Windows :**
✦ Desk Top & its terminology	

THEORY	PRACTICAL
✦ Setup using Control Panel	✦ Using essential accessories, defragmenter, virus scanning and removal.
✦ Windows Accessories	✦ Installation of various softwares.
✦ File management / Folder concept	
Week No. : 5	
Networking Concept	**Internet**
✦ LAN, MAN, WAN	✦ Use of Internet accessing / browsing
✦ File & Printer Sharing	✦ E-mailing, Downloading.
✦ Introduction & Use of Internet	
Week No. : 6	
Printing Processes	—DO—
✦ History of printing	
✦ Introduction	
✦ Types of printing	
✦ Comparative Analysis	
UNIT-2: DOCUMENT SETUP	**Understanding & File Manipulations in various Softwares.**
Conceptualization of Document	
Week No. : 7-10	**(a)MS-Word**
Desk Top Publishing:	✦ Basics of Word-Processing:
✦ Introduction	✦ Text Selection, Opening Documents and Creating Documents, Saving Documents / Quitting Documents, Cursor Control, Using the interface (menu, toolbars), Editing text (copy, Delete, move, etc.) Finding and replacing text, Spell check feature/ Auto correct feature, Grammar facility, Auto text, Character formatting, Page formatting.
✦ Merit and demerit	
✦ Comparative analysis between DTP and traditional composing processes.	
✦ Costing, estimating of DTP Unit.	
✦ Word Processing through MS-Word.	
	✦ Document Enhancement:
	✦ Adding borders and shading, Headers and footers. Setting up

THEORY	PRACTICAL

serting Graphics, pictures and text, Using templates and wizards, text wrapping, printing documents. Proof corrections with appropriate proof reading marks.

Week No. : 11-16
Typography
- Types (Fonts), Type size, different families.
- Point system and other system of measuring.
- Coasting off, typography, proof reading, familiarization with symbols/proof reading marks used in marking copy/typescript for press.
- Determining line measure and page depth and margin, House styles.
- Page composing through Page Maker.

(b) Adobe PageMaker
- Basic concepts: Creating and opening publications, using the tool box, working with palettes, text and graphics, starting a publication from a template, saving and closing a publication.
- Tutorial- positioning ruler guides, typing text, formattig graphics, creating columns, creating styles, changing type style and alignment, rotating and moving of text block and graphics, placing text file, setting tab, indents, leaders, copying graphic between publications, positioning and resizing the logo.
- Constructing a publication:- setting up pages, changing document setup, using master pages, choosing a measurement system and setting up rulers, adjusting layout, numbering pages, rearranging pages creating running header and footers importing text, threading text blocks, balancing columns, edit story, customizing the dictionary, hyphenation, leading, frames, layers, locking object, wrapping text around graphics cropping a graphic, using libraries assembling publications into a book, indexing

THEORY	PRACTICAL

graphic, OLE (object linking and embedding), TIFF image, PDF, HTML formats printing of publication proof corrections with appropriate proof reading marks.

Week No. : 17-22
Composing Process:
- Introduction of various methods of composing.
- Different composing processes and their development. Suitability for job merits and demerits.
- Brief description of different composing machines.
- Output Devices : Inkjet printer, Laser printer, Image setters, computer to plate, computer to printing machine, Light sensitive materials used in output devices i.e. Film/Bromide types of films used in image setter.
- Page, composing through Quark

(c) Quark Express :
- Specifying Document setting.
- Creating and opening publications, use of palettes & control.
- Typing & Text manipulations.
- Positioning, Resizing, scaling and stacking typing text, formatting graphics, creating columns, creating styles, changing type style and alignment, rotating and moving of text block and graphics, placing text file, setting tab, indents, leaders, copying graphic between publications, viewing page in appropriate format.
- Master pages, Master Items & spreads.
- Tables manipulations.
- Box and line manipulations.
- Drawing, merging & reshaping items.
- Web document Feature.
- Setting up pages, changing document setup, choosing a measurement system, adjusting layout, numbering pages, rearranging pages, Continued lines & linked text chains importing text, creating columns, editing, customizing the dictionary, hyphenation, leading, Long documents, Drop caps,

THEORY	PRACTICAL
	dexing a publication, creating table of contents, applying colour, edit colour, creating custom colour, colour libraries.
	✦ Halftone separating & Trapping.
	✦ Importing, linking and exporting a graphic and document, OLE (object linking and embedding), EPS, PS, PDF, HTML formats.
	✦ For outputs, printing of publication, proof corrections with appropriate proof reading marks.
Express.	
Week No. : 23-25	**Bilingual Software**
Digital Printing	✦ Setting of Bilingual (Hindi / Any Regional language) matter.
✦ Type of digital printing.	✦ Solid and Tabular setting with any multiscript language software i.e., ileap Office/ ISM publisher.
✦ Uses in commercial operations.	
✦ Inkjet/bubble jet / thermal printer / laser printer used for small and big formats.	
✦ Page composing through Regional Language Software.	
UNIT - 3 : DOCUMENT DESIGN-ING & ADVANCE FEATURES	**Scanning**
Week No. : 26-27	✦ Use of scanner for picking up illustrations, line drawings, sketches etc.
Graphic reproduction	✦ Setting of scanner.
✦ Tonal value, Tonal gradiation,	✦ Selection paper line/screen per inch.
✦ Continuous tone, Half tone, Moir pattern.	✦ Selection of highlights, middle tone and shadow area, Contrast.
✦ Highlight, Middle Tone Shadow areas, contrast & details.	✦ Reading of colour strip and do colour correction.
✦ **Scanning**	✦ Making of OCR.
—Principle of scanning.	
—Types of scanners (Flatbed & Drum) and its use.	
—Resolutions DPL LPI	

THEORY	PRACTICAL
iting through Photo editing Software.	**(a) Adobe PhotoShop**
—Preparation of OCR.	✦ Image Fundamentals:- Digital image, Pixel, resolution, DPI, raster image/bitmaps, vector image/ graphics.
Week No. : 28-31	✦ Various File format:- Bitmap, jpeg, PSD, PDD, TIFF, GIF.
-DO-	✦ Understanding Various Tools :- Marquee-Rectangular/Elliptical, Move, Lasso, Polygonal Lasso, Magnetic Lasso, Magic wand, Crop, Air brush, Paint brush, Pencil, Rubber Stamp, Pattern stamp, Erase, Paintbucket, Direct selection, Path component selection, Pen, Custom shape, eye dropper, Hand, Zoom.
	✦ Understanding various Palettes:- Navigator, Info, Colour, Swatches, Style, History, Layers.
	✦ Paths, Character, Paragraph, Foreground Colours, Background colors, Default colours.
	✦ Switch colours.
	✦ Details about Status Bar, Option Bar.
	✦ Edit Image in Standard mode, Quick Mask mode.
	✦ Various Image Display Options:- Standard Screen mode, Full Screen Mode with Menu Bar, Full Screen mode.
	✦ Various Edit Commands- Transform Preferences Define Brush

THEORY	PRACTICAL
	Grayscale, Adjust- Brightness/ Contrast, Hue/Saturation, desaturate, Replace colours, Inver, Variations, Canvas size, Rotate canvas, crop, Trim- Various Layer Commands:- Rearranging Layers, Lock Layers, Merge down, Merge.
	+ Visible, Flatten Image, Working with layers set.
	+ Various Select commands.
	+ Various Filter Effects:- Render 3D Transform, Lens Flare, Lightning Effects, Motion Blur, Radial Blur
Week No. : 32-37	+ Various View commands.
Graphic Design	+ Print Option.
+ Principle of page design.	**(b) Corel Draw**
+ Elements of design.	+ Introduction:- creating, opening, Saving, closing drawings, Setting up the drawing page, Using the rulers, grid, and guidelines, viewing document.
+ Colour- Define colour, type of colours, impact of colours, colour wheel, achieving of different colours through appropriate colour percentage. Selection of types (Fonts) for text/ display work.	+ Drawing and Shaping Objects:- Drawing, Moving & Shaping Object, drawing lines and curves, dimensions line.
+ Preparation of Graphics	+ Working with Style & Templates. Organizing Objects - Arranging & changing the order of objects.
+ Creation of rough sketches.	+ Grouping, Ungrouping, locking and unlocking objects.
+ Colour Selections.	+ Using and setting layers.
+ Font & Image selection.	+ Aligning & editing object data, orking with pattern and texture fills, applying and editing line ending shapes, splitting and erasing portions of objects, positioning, moving, stretching and rotating ob-

THEORY	PRACTICAL
	+ Formatting text and paragraph, hyphenating text, linking paragraph text frames, using spell checker and grammar, using thesaurus.
	+ Creating and editing blends, envelopes.
	+ Creating and modifying vector and bitmap
	+ Extrusions, creating drop shadows, creating and editing transparencies, contoured
	+ Objects, Working with linked bitmap, cropping, colouring and converting bitmaps.
	+ Applying special effects to bitmaps by 3D.
	+ Effects, blur effects, contour effects.
	+ Creating documents for various formats, using layout, previewing sizing and positioning a print job.
	+ Creating colour separations, working with halftone and bitmap screens.
	+ Importing and exporting files, OLE (Object linking and embedding),
Week No. : 38-42	+ Printing of Document/ Design.
Page make-up	
+ Principles of page make-up of Books.	**(c) Adobe Illustrator :-**
	+ Introduction:- Creating, opening, Saving, closing drawings.
+ Board Room/Seminar Presentation material preparations.	+ Setting up the drawing page.
+ Copy preparation and copy fitting procedures.	+ Using the rulers, grid and guidelines, viewing document.
+ Imposition schemes.	+ Drawing & Shaping, Arranging objects, Grouping/Ungrouping,

THEORY	PRACTICAL
	✦ Editing, formatting Text, formatting Paragraph, linking.
	✦ Arranging Drawings, Editing objects, Shaping, Rotating, Stretching, Positioning.
	✦ Modifying various Images, Vector, Bitmap Images, working with Link bitmap Image, Converting Bitmaps, Applying special effects.
	✦ Importing and exporting Files, Object Linking & Embedding, Creating documents for various formats.
	✦ Creating colours.
	✦ Working with halftone images, Resizing, Positioning of Image, Colour corrections, RGB mode, CMYK mode, converting various formats.
	✦ Printing document/design.

UNIT - 4 : FILE & PRINT MANAGEMENT

Week No. : 43-44
Printing

✦ Various Types of Printers and their uses,	**Printer :**
✦ Merit & Demerits.	✦ Installation of New Printer by printer setup.
✦ File format supported for printing, Familiar with various file format i.e., EPS, PDF, etc.	✦ Use of Inkjet/ DeskJet / Laser Printer for taking out copies.
✦ Using ICC based colour management.	✦ Colour calibration of printer with monitor.

Week No. : 45-46
Costing & Estimating :
✦ Costing and estimating of various jobs.

Design Projects :
✦ Practice of Graphic Design with

THEORY	PRACTICAL
Week No. : 47-48 **Project Work and Binding :**	**Project Work and Binding:**
✦ Preparation of Project Work for DTP unit.	✦ Project Work & Binding the pages in form of Book using spiral /spico binding machine.
✦ Various Binding techniques.	
Week No. - 49-51 Industrial Visit.	Industrial visits, various printing processes and related technology, various composing process and related machines. Inwards works and its costing, estimating and various binding techniques.
Week No. : 52 Final Trade Test.	Final Trade Test.

ACHIEVEMENTS

The trainees are expected after completion of 52 weeks training :-

(i)   Handle and operate Personal Computers, Peripherals and Printer independently.

(ii)   Estimating and costing of the job to be composed.

(iii) Preparing graphic design of book/ magazine cover. charts/posters, letter heads and visiting cards presentation materials etc.

(iv)   To execute all the key board commands, editing and to operate the DTP Unit and Printers attached to Computers.

LIST OF TOOLS AND EQUIPMENTS
(For a Unit of 16 trainees)

Sl.No.	Description	Quantity

A. **COMPUTER PERIPHERALS & SOFTWARES**

1. **PC Configuration:**

Personal Computer: 8 Nos. (for Trainees)
+
01 No. (for Faculty)
= 09 Nos.

- ✦ 2GHz of higher Intel CPU
- ✦ 256MB or higher RAM.
- ✦ 40 GB HDD or higher.
- ✦ 1.44 MB FDD (3.5")
- ✦ 15" Colour monitor
- ✦ 104 keys Bilingual Keyboard.
- ✦ Two button optical scroll mouse with pad
- ✦ 52X CD-ROM drive or higher
- ✦ Ethernet card (LAN Card)
- ✦ 2 Serial, 1 Parallel and 2 USB ports.
- ✦ 2PS$_2$ Port for keyboard and mouse.
- ✦ Multimedia kit with speaker and mike.
- ✦ MS-Windows OS latest version
- ✦ Necessary device drivers for the OS.

(Note: Model should be with latest configuration)

2. External CD writer   1 No.

3. Colour Inkjet Printer /Deskjet Printer   1 No.
1200*600 DPI Black and Colour, Paper size A4, 2 MB Memory, Printing speed 4 to 6 page per minute.
(Note : Model should be with latest configuration)
Laser printer with 4.00 MB RAM and Post Script emulation cartridge.

4. Speed 12 to 16 pages per minute.   1 No.
Resolution 1200 DPI or higher.
(Note Model should be with latest configuration)

5. Page Scanner flatbed type scanner (Reflection   1No.
& Transmission) with standard accessories, 1200 DPI or higher, with OCR software.

(ii) MS Office
(iii) Corel Draw
(iv) iLeap Office / Any Bi-lingual software.
(v) Quark Express for Windows.
(vi) Norton Anti-Virus / Any Antivirus Software.
(Compatible with Operating System)

7. Networking (LAN)   As per requirement.
All the computer system should be connected in LAN. The printers connected to any of the PCs in the LAN should be shared using LAN.

8. Internet connectivity   1 No.

9. 625 VA or higher line interactive UPS   9 Nos.
with 20 minutes battery backup.

B. **EQUIPMENTS**

10. Spiral / Spico Binding Machine   1 No.

11. Air conditioner 1.5 tons with   2 Nos.
Voltage Stablizer.

C. **FURNITURE ITEMS**

12. Chairs for Computer.   16 Nos.

13. Table with sunmica / Novapan top   11 Nos.
for computers, printers and other machines.

14. Steel cupboard.   3 Nos.
(2 for faculties, 1 for stationery items)

15. Storable cabinet - back up/ software   1 No.

16. Book Case.   1 No.

17. Shoe rack (Pigeon Hole Type)   02 Nos.

18. Instructor Chair (Lab & Classroom)   02 Nos.
(1 for each Faculty)
1 No. (for class room)

19. Instructor table with sunmica   2 Nos. (1 for each Faculty)

D. TOOLS & MISCELLANEOUS ITEMS

22.	Em scales, steel rules, scissors, Eye glass 10X.	5 Nos. (Each)
23.	Paper cutter (standard size)	1 No.
24.	Tape holder	2 Nos.

E. BOOKS

25.	Reference Book for each software.	5 Nos.

Note :

(i) Lab should be dust proof and having Electrical wiring with proper earthing.

(ii) FACULTY -

As the trade involves dual skill, two faculty members may be assigned for training one unit of the trade with the following specialization:

Group Instructor / Training officer :   1 No.

Essential Qualification:

Diploma in Printing technology with knowledge and experience of computer application and Desk Top Publishing.

Vocational Instructor :   1 No.

Essential Qualification :

National trade certificate in appropriate trade with knowledge and experience in Desk Top Publishing.

OR

National Apprenticeship Certificate in appropriate trade with knowledge and experience in Desk Top Publishing.

LIST OF TRADE EXPERTS FOR DESK TOP PUBLISHING OPERATOR
TRADE COMMITTEE MEETING

1. Shri D. K. Sharma
Director of Training (WO),
D.G.E.&T. , New Delhi.
Ph. : 23718903 — Chairman

2. Shri S. Majumdar,
HOD Printing Department,
Pusa Polytechnic,
Pusa, New Delhi.
Ph. : 25787822 — Member

3. Shri A. K. Sinha
Deputy Director
Directorate of Printing,
Nirman Bhawan,
Room No. 108, B-Wing,
New Delhi
Ph. : 23017830 — -Do-

4. Shri V. Rama Krishnan,
Technical Director,
Labour International System Division (NIC)
Room No. 111, Shram Shakti Bhawan
Rafi Marg, New Delhi - 110 001
Ph. : 23327180 — -Do-

5. Shri Rajender Sethi,
Scientist "D"
Labour International System Division (NIC)
Room No. 111, Shram Shakti Bhawan
Rafi Marg, New Delhi - 110 001
Ph. : 3001462 — -Do-

6. Shri Sudhir Wadhwa,
Manager (Pre-press)
Hindustan Times House — -Do-

7.   Shri Rajeev Verma,   -Do-
       Quality Officer
       Hindustan Times House
       18-20, Kasturba Gandhi Marg
       New Delhi - 110 001
       Ph. : 23361234 - 321

8.   Shri Sandeep Ganguly,   -Do-
       Vice President (Tech, & Mktg.)
       Graphic Art Division
       Computer Graphic Limited
       E - 198, Naraina Vihar,
       New Delhi - 110 028
       Ph.: 25798889, 25798890

9.   Shri A.K. Ganguli   -Do-
       Jt. Director of Training
       Room No. 516, CPIU
       DGE&T, New Delhi
       Ph. : 3001235

10.   Shri Sidharth Kumar   Member Secretary
       Jt. Director of Training / Principal
       N.V.T.I. (W), Noida
       Ph.: 2523303, 2552063

11.   Shri Rajendra Kumar   Special Invitee
       Asst. Director of Training
       N.V.T.I. (W), Noida

12.   Smt. Krishna Gargaj   -Do-
       Asst. Director of Training
       N.V.T.I. (W), Noida

13.   Shir P.K. Chandel   -Do-
       Training Officer
       N.V.T.I. (W), Noida

14.   Shri G.L. Tulsulkar   -Do-
       Training Officer
       N.V.T.I. (W), Noida

15.   Shri S.K. Acharya   -Do-
       Vocational Instructor
       N.V.T.I. (W), Noida