

**ONLINE COURSE MATERIAL**

**2PGDCA3 (A)**

**D.T.P. WITH PAGE MAKER  
& PHOTOSHOP**

**UNIT - I**

**Dr. Mani Nair**

Faculty, MCU, Bhopal.



**Makhanlal Chaturvedi**

**National University of Journalism & Communication**

**B-39. Vikas Bhawan, Zone – I, M.P. Nagar, Bhopal. M.P.**

SEMESTER-II  
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**DTP WITH PAGE MAKER & PHOTOSHOP**

**Dr. Mani Nair, MCU, Bhopal.**

**Introduction to Desk Top Publishing (DTP):**

Desktop publishing is a technology where the electronic form of information like documentations, presentations, books, web pages, publications, brochures, advertisements etc. are created using a computer. This technology is being used for designing of various printing and publications materials as needed the same techniques has been used for web page design also. In the year of 1980, Apple introduced Macintosh with the idea of DTP with micro computers. The Macintosh could get a successful result in mixing up different texts, numbers, graphics images etc. into a single page on a table top.

**Photo Composing Machines and DTP:**

DTP was a replacement of photo composing unit, where a number of people and various types of process was required while designing the page and its print out. DTP was a boon to the book publishers who were depending on the photo-composing which was very expensive, time consuming and had very limited facilities.

Before to the DTP, photo composing machines where are used for designing the pages for publications. These type-setting machines had a computer system but it was not a micro computer as seen today. It was basically working on a photographic technology where photographic materials like bromide and films are used and processed & developed with chemicals.

**Definition:**

The DTP stands for Desk Top Publishing. The definition of desktop publishing is, a printout of the publication can be taken out in a short time, including a page layout with the graphic designing and setting from one table top itself. It means on a single table you can do the typing, editing, layout operations, proofreading and finally the printout is taken on any paper or even on a transparent sheet as needed.

### **Use of DTP in Offset Printing and Web Designing:**

The use of DTP increased and become popular when it was taken by the newspaper industry. The newspaper Industry and publication houses widely used DTP in printing technology through Offset Printing. The same technology is supported Web Designing also.

### **Need and Area of Application:**

The DTP is being used by individuals, News Paper Industry, Publications houses, Businesses and other organisations for self-publishing frequently with a wide variety of contents they deal with. Presently DTP plays a vital role in all fields and walks of life.

### **Use of Desk Top Publishing in Publications:**

DTP is used for publications of magazines books, brochures, Notifications, Projects, Presentations, Reports etc. Desktop publishing software can generate layouts and produce typographic-quality text and images comparable to traditional typography and printing.

### **Importance of D.T.P in Publication:**

Desktop publishing is also the main reference for digital typography in present scenario. It has a wide range of use in multiple ways. There are many techniques to convert data from one format to another very easily, so as to use the same data for multiple times.

### **Advantage of D.T.P. in Publication:**

Convergence of latest technologies with text, graphic, design, images is one of the best advantages of D.T.P. in publications. Presently it is widely used by all people for their day to work right from school life. The word processing softwares promoted and helped the learners to ease their job to Desk Top Publishing. Use of Multilingual, Text input method, editing, proof reading through spell check, thesaurus etc. are some of the few Advantages of DTP.

### **Page Layout & Designing in a single page production:**

Page layout & designing refers to the arrangement of text, images, and other objects on a page where various types of designing are used. Different types of Page layout techniques are used to customize the appearance of magazines, newspapers, books, websites, and other publications to make the page lucrative and beautiful.

The page layout of a printed or electronic document contain the page margins, text blocks, images, object padding, and any grids or templates used to define positions of objects on the page. Page layout applications, such as Page Maker, Adobe InDesign and QuarkXpress, CorelDraw etc. allow page designers to modify all of these elements for a desired publication. Many Web development softwares, Adobe Dreamweaver and

Microsoft Expression allow Web developers to create similar page layouts designed specifically for the Web.

**Laser printers- Use, Types, Advantage of laser printer in publication:**

Laser Printers are the printers which use the technology of Laser and the powdered ink called Toner. The printer works in the similar way of a Photostat machine which reads data from a computer with electronic charging of letters & images. It can be printed on any paper or plastic transparent sheets. It is also available in black and multi colour print options. It is faster than the inkjet printer and can print in different qualities in either side of paper.

**Difference between a Word Processor and Publication Software:**

Publication Software & Word Processing softwares are similar in use & working. But it has its own specialties also. Even though publication softwares has many similarities with word processing; the desktop publishing uses Rich Text Format, where different types of typography, variety of graphics designs are lavishly used while preparing pages & layouts.

**Use and importance of DTP in Publication & Newspaper Printing:**

The desktop publishing softwares are used to design and create layouts for books, magazines, newspapers, flyers, pamphlets, and many other kinds of printed documents in News Paper Industries and Publication Houses.

**Various DTP Softwares and its application area:**

Desktop publishers use softwares like Adobe Page Maker, Adobe InDesign and QuarkXpress to create page layouts for documents they want to print. All the printing like Offset Printing, Screen Printing, Plotter etc. are supported and prepared by DTP softwares only.

**Introduction to Offset Printing Technology & Printers:**

Offset printing is a commonly used technique widely used to print in large quantity. Offset printing is a printing technique in which the inked image is transferred or Offset from a plate to a rubber blanket, then to the printing surface. Offset printing, is the most common method for printing of newspapers, books, magazines, brochures, leaflets, and maps. The cost of printing per unit decreases when the quantity of printing increases.

**Formatting of a text:**

Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc. are used for designing and formatting of text.

In page making and designing, various types of letters, i.e. typography, fonts, Point size (height/size of letters) Spacing, Breaks (a feature available in Page maker) &

measurements are the basic elements of a good page format and designing in publications. In this process, Laser Printer played a vital role in supporting Typeset & Offset Printers.

### **DTP & Page Layout Designing :**

DTP softwares plays a vital role in the preparation and designing page layouts containing the combination of text, graphics and images in a single page. The designing & presentation of a page really attracts and become lucrative to the reader. The designing has a major role in the field of publication. Basically, it attracts the reader or customer and make them bound to the content. Most DTP packages provide a large, readymade range of professional looking templates to enable you to quickly create a publication.

### **Types of Printing:**

**Lithography:** Lithography is a method of printing that uses a flat stone or metal plate on which the image areas are worked using a greasy substance so that the ink will adhere to them by, while the non-image areas are made ink free (means, it will not print on this area).

**Flexography:** Flexo printing is used to print on any flexible material. Flexography, derived from the Latin word “Flexus” means translated as “bending” is a type of a rotary in-line printing method. The flexible materials can vary from plastics, paper, metallic objectives etc.

**Gravure:** Gravure printing is also known as Rotogravure printing. In this printing a technique in which an image is engraved into a printing cylinder. Then the cylinder is inked and this ink subsequently transfers to the paper or similar materials. Gravure is used for high volume work such as newspapers, magazines, and on packaging materials. It is similar to offset printing and flexography but simple in print process. The rotogravure process is still used for commercial printing of magazines, postcards, Wall papers, Cardboard and other product packaging.

**Screen Printing :** As the name describes, this printing technique relies on a screen similar to a mesh, which is a woven piece of fabric. This screen is made of a piece of mesh stretched over a frame. The final printout on a transparent sheet is exposed on this screen through light after apply chemicals. After exposing, the screen is washed well. The expose & unexposed area of the screen will control the ink through the screen. Through the open spaces of screen ink can be pushed through the mesh onto paper or surface. The advantage of screen printing is, it can printed any materials such as paper, textiles, glass, ceramics, wood, and metal. It is the cheapest mode of printing for less volume of quantity.

**Offset Printing :** Offset printing is a printing technique that involves the transferring of an image from a metal plate to a rubber blanket or rollers before being printed on the receiving media, usually paper. In this method, the paper does not come in direct contact with the metal plates. Offset printing helps in producing high-quality output on any surfaces like Paper, Metal, Plastic Cloth, Wood etc. The rubber leaves a very fine print on rough surfaces, making the process effective. The process is equally efficient for small, medium and large-scale production of printing due to its high quality, inexpensiveness and consistent results.

### **Print Media & Offset Printing:**

Print media is depended totally on Offset Printing, because it can print large volume at less cost. And it also prints fastly and can produce thousands of prints in an hour in Offset printing. The newspaper industry and many other publication houses use this mode printing so as to print on large volumes in very short time. Print Media uses two types of offset printing machines generally: Sheet Fed Offset and Web Offset printing.

In Sheet-fed offset printing, single sheets of paper are fed into the machine. It is trimmed after printing. The same sheet is fed four times if it is Four Colour Printing. Small and medium-sized fixed jobs such as limited-edition books are printed in Sheet Fed Offset Printing. In Web Offset printing, large rolls of paper are fed to the larger, higher-speed machines. After printing, the printed sheet is separated and trimmed automatically. Particularly the News Paper Industry is used this technology as they have to meet the time restriction. Web offset printing is more cost-effective for high-volume publications houses and newspapers.

### **Terms used in Offset Printing:**

**Bleed:** In printing, the bleed is the part on the side of a document that gives the printer a small amount of space for movement of the paper. Bleed is the space goes beyond the edge of where the sheet will be trimmed off.

**CMYK:** CMYK Stands for Cyan, Magenta, Yellow & Black colours. These are the four basic colours used for printing color images. CMYK is used in printing technology where colors are "subtractive", which means the colours get darker as you blend them together.

**Transparent Printouts - Bromide & Film :** Transparency paper or film is a type of thin plastic sheet in which the final print is taken for Offset Printing. The final print on Transparent sheet is vital for platemaking which are later fixed in the Offset machines before printing it to the paper surface. Bromide Paper is a photographic paper coated with a light-sensitive chemical formula used for photo printing. Film also used in the same way. Bromide Paper & Films were used in Photocomposing machine instead of transparent sheets used in D.T.P & Laser Printer.

**Halftone:** Halftone is an image comprised of discrete dots rather than continuous tones. When viewed from a distance, the dots blur together, creating the illusion of continuous lines and shapes, by halftoning an image (converting it from a bitmap to a halftone). The advantage is, it can be printed using less ink.

**Impression:** Impression is a process and generally known as similar to Print. But it really meant a method of printing, where one object is pressed on another like paper, plastic or any other similar material.

**Saddle Stitch:** In the printing industry, Saddle Stitching is a stitching method used for book binding. The binding of folded sheets are done through Saddle Stitching where the wired staples are pinned on the folding crease of gathered paper set. For saddle stitch, a minimum of 8 pages are required.

**Perfect Bind:** Perfect Binding is a widely used method for soft cover book binding. In this, the pages and cover are glued together at the spine. The cover is usually made from a thick sheet may be laminated or coated for the protection book.

**Negative & Positives for Plate were making:** In Offset Printing plates are used to transfer an image to paper, cardboard or any other surfaces or objects. Usually printing plates are made of metal or thin aluminum sheets which should be easy to mount the plate cylinder of offset machine. Many other type materials like plastic, rubber, paper are also used. It all depends on that, how many copies or impressions you need to print. The final output on a transparent sheet either in Negative or Positive (straight & reverse) image, is transferred on the printing plates through photochemical or laser engraving processes in the process of plate making.

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