**M.A. DEGREE EXAMINATION, DECEMBER – 2019**

**First Year JOURNALISM AND MASS COMMUNICATION**

**Reporting and Editing**

**ASSIGNMENT-2**

**Question 4**

**Explain process of Colour Printing**

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**Introduction**

Over the last century, as technological innovation in pigments, materials, [tools, presses](https://www.sciencedirect.com/topics/engineering/presses-machine-tools) and printing methods has progressed, so too has the opportunity to print full colour images across a diversity of markets. **Colour printing is the** process of reproducing a material in [colour](https://www.britannica.com/technology/colour-separation-process) on the printed page.

**Four-Color Printing Process**

4-Color Process is the most widely used method for printing full-color images. All commercial printers use the 4-Color Process method for projects that contain multi-colored designs or photographs. This includes books, catalogs, manuals, magazines, brochures, postcards and any other printed items that contain full color images. Because of its widespread use in both offset and digital printing, 4-Color Process is much more affordable today than in years past.

As its name implies, 4 ink colors are used in 4-Color Process printing. These four colors are Cyan, Magenta, Yellow, and Black…which are known collectively as CMYK. In fact, 4-Color Process printing is frequently referred to as CMYK printing. It is also known as Four Color Printing, 4CP, Full Color Printing, or simply Process Printing.

Full-color images are created on the printing press by applying separate layers of the Cyan, Magenta, Yellow and Black inks. Thousands of colors can be reproduced by overlapping these CMYK colors in various concentrations. Applied as tiny dots on the paper (or other substrate), the four CMYK colors combine to create the visual effect we know as full color printing. Look at the photographs in a printed magazine or brochure under strong magnification and you will see the distinct CMYK dots.

**six-color printing** **process**

An emerging method of full-color printing is **six-color process printing** (for example, [Pantone](https://en.wikipedia.org/wiki/Pantone)'s [Hexachrome](https://en.wikipedia.org/wiki/Hexachrome%22%20%5Co%20%22Hexachrome) system) which adds orange and green to the traditional CMYK inks for a larger and more vibrant [gamut](https://en.wikipedia.org/wiki/Gamut), or color range. However, such alternate color systems still rely on color separation, halftoning and lithography to produce printed images.

### 3D printing

Colour printing technology is developing rapidly; in less than 40 years, it moved from dot matrix printers with an ink-soaked cloth ribbon to 3D printers used to make three-dimensional colour objects.

However, the technology has not been capable or cost-effective enough for most end-product or high-volume commercial manufacturing. Based on expectations these shortcomings are about to change. An emerging class of mid-level 3-D printers is starting to offer many high-end system features in a desktop form factor at lower price points. There are several emerging uses of [3D printing](https://www.sciencedirect.com/topics/materials-science/three-dimensional-printing) such as: automotive and industrial manufacturing; aerospace; pharma and healthcare; retail; sports.

**Conclusion**

**The use of color in print increases readership and information retention.**
Studies revealed that the use of color increased readership. Also, there will be increase in the retention of material when full color was used instead of black and white.

**References**

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