

NIELIT Gorakhpur

Course Name: O Level (2nd Sem)

Subject: ICT

Topic: Non Impact Printers

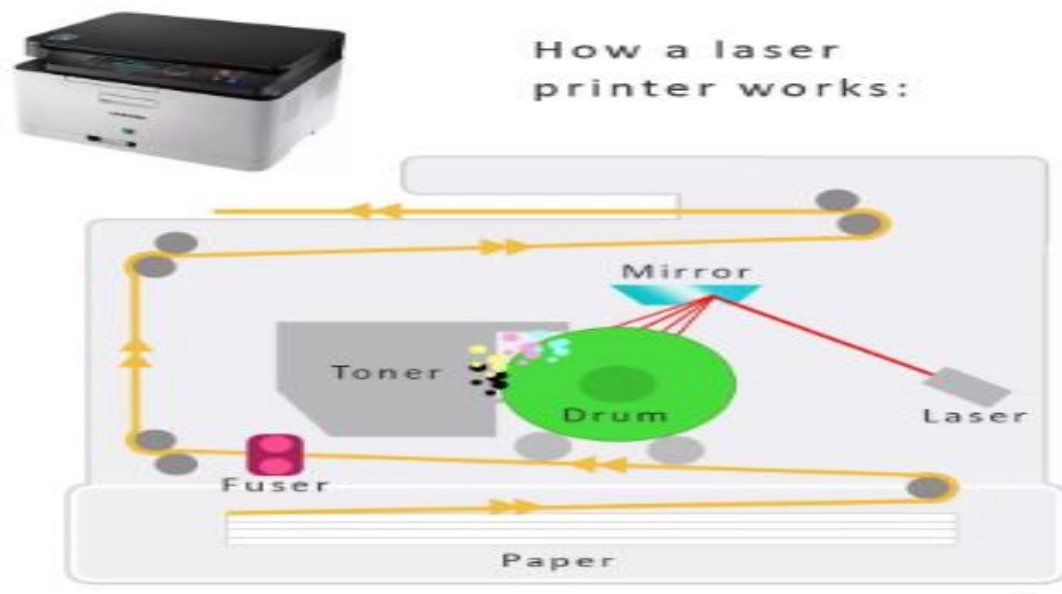
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Laser Printer:- Laser stands for Light Amplification by Stimulated Emission of Radiation. A laser printer is the fastest and high quality non-impact printer. It works like a photocopier. The laser printer transfers the image of output on paper using LASER technology and toner. Toner is an ink powder. It is used in laser printers and photocopiers also. The laser printer has a special drum inside it. First the image of output is created on the drum, and then it is transferred from drum to paper. The image of output is created on the drum by throwing magnetic ink powder in the form of microscopic dots. These dots can be from 300 dpi to 1200 dpi. The Laser printer can print both text and graphics in very high quality resolution. Laser printer prints one page at a time. The laser printers are, therefore, also called page printers. The printing speed of laser printer is about 4 to 32 pages per minute for microcomputer and up to 200 pages per minute for mainframe computers.



How Laser Printers Work:

1. The printer's laser beams your print onto a metal cylinder called a drum.
2. Using static electricity, the drum attracts powdered toner from its cartridge to the drum.
3. The drum rolls the toner onto the paper in the form of your print.
4. The toner is melted onto the paper by heat from a fuser as it passes underneath.
5. Your print comes out of the printer.



Ink-jet printer:- Ink-jet printer is type of non-impact print. The ink-jet printers have low price than laser printers. They are also slower and have low print quality than laser printer. However, they are faster and have high print quality than dot matrix printers. The printing speed of ink-jet printer is from 1 to 6 pages per minute. It creates output on paper by spraying tiny drops of liquid ink. Inkjet printer has print-head that can spray very fine drops of ink. It consists of print cartridge filled with liquid ink and has small nozzles in form of matrix. Like dot matrix printer, the combination of nozzles is activated to form the shape of character or image on the paper by spraying the liquid ink. These printers have resolution ranging from 300 to 720 dpi.



Thermal printer :- Thermal printer is another type of non-impact printer. It can only print output on a special heat sensitive waxy paper. The image if the output is created on the waxy paper by burning dots on it. For coloured output, coloured waxy sheets are used. Thermal Printer produces a high quality printout. It is quite expensive as compared to other non-impact printers.



Exercise:-

- 1- Explain the working of Laser Printer.
- 2-Why are non impact printers famous?Explain.