What is Optical Mark Reader In a Computer System | 6 Advantages & Disadvantages

The OMR is an **input device of computer system** that is used for collecting data and information from other sources and presenting it to a computer system for further processing and handling.

This OMR device uses laser light for detection; they are extensively used in examinations to check correct answers.

What is Optical Mark Reader in a Computer?

OMR (Optical Mark Recognition) Reader is an input device that uses a light beam to identify any marks on the paper.

As the light beam falls on any signs on the paper.

OMR devices read those signs and provide input to the computer.

With OMR, we can easily determine the correct answer to any objective-type question.

We can quickly know the answers to thousands of questions in very little time, and we can check the paper simultaneously.

An **OMR** is a device that shows the presence or absence of any mark on a piece of paper. Light flows in places with no signs but light in areas with a warning.

This technique was used to check a student's answer sheet. The student marked the correct option, the light flowed from the empty spots, and the light on the marked side stopped.

If we mark the correct option, we get marks on that particular question; the entire answer sheet is completed in a few seconds.
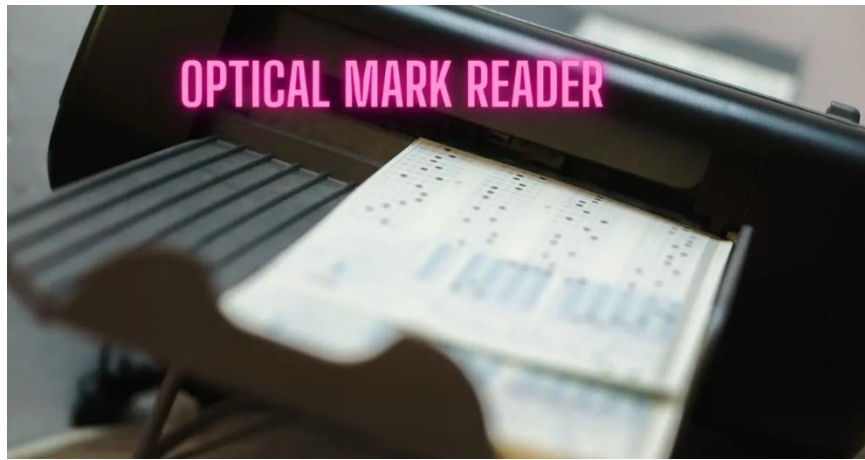
The OMR worked too fast. They checked 400-500 answer sheets within one minute.

What is the Function of OMR [Optical Mark Reader]?

OMR stands for Optical Mark Reader, a type of scanner used to identify different types of marks you can see on **different types of OMR** sheets.

While solving the OMR sheet in an examination, the options are filled with black color that identifies you have solved the respective question.

OMR scanner emits laser light on your answer sheet to scan your answer and only that part where you fill the black circle on the answer sheet.

The laser light emits fewer amounts of light when the option is filled with black color; on the other hand, it reflects or emits less amount of light when there is no color.

OMR is used in schools and other departments like some agencies where data input is made simple using OMR.

The main function of an optical mark reader is to read the marks that are printed on a card or label.

The marks can be black or white, large or small, or anywhere on the card or label surface.

The **optical mark reader** scan barcodes using an LED light source that reflects off the surface of the code and returns it through a lens into a **photoresistor** (variable resistor), which changes its resistance in accordance.

`Some of the common optical mark reader functions are`

1. Ease to Use.
2. Complexity.

Advantages of Optical Mark Reader

- (OMR sheet) scanners have the advantage of checking almost 10000 copies of answer sheets in a single hour.
- When you fill out data entry with a keyboard, there is a greater possibility of making a mistake, and when you use an optical mark reader, the chances of making a mistake are less.
- You can collect data by using the computer for data collection.
- Optical Mark Reader will save us time. This device, in less time, will check more copies.
- With the help of Optical Mark Reader, there are low chances of the wrong check of the answer sheet.
- With the help of the OMR sheet, data collection will be effortless.

Disadvantages of Optical Mark Reader

- The OMR sheet must be filled out properly because the optical mark reader will not read the data if it is not filled out correctly.
- Optical Mark Reader collects only that data with multiple choice options. If you want to contain only a single piece of data, you shouldn't use an OMR scanner.
- In the case of single data collection, OMR cannot be used since it is designed for multiple choices.
- You should circle the option carefully whenever you fill out this OMR sheet.
- Optical Mark Reader will not check if we don't fill the OMR sheet carefully.

- OMR is extensively used in the Multiple Choice Questions format.

Explain What is OMR Sheet?

The OMR sheets are used and utilized in multiple choice questions in examinations.

The multiple-choice question format allows you to choose a single correct answer, and multiple selections are not allowed.

OMR also known for Optical Mark Recognition.

This is one **type of scanner** used to identify signs and marks. With the help of an OMR sheet, OMR can be scanned with the use of laser light.

On the OMR sheet, a black circle is filled with the amount of laser light that comes less from that area, and where there is no black circle fill, laser light comes more.

The OMR scanner inputs your OMR sheet data and identifies your given answers in that type.

OMR sheet does not use only for exam purposes. It is used to collect data also.

Examples of Optical Mark Reader

OMR is an Optical Mark Reader; it is a device that identifies the mark which is present on the paper, by pencil or by a pen

OCR's full name is Optical Character Reader, which hides characters by balancing mutual they find OCR character.

In computer OCR-A or OCR-B font is called OCR standard.

On **Optical Character Reader** located photo elected device to scan this character, which converted reflected data to binary data and gave it to the computer.

MICR (Magnetic Ink Character Recognition) this device is used to read the check on the bank.

Some straight lines present by their different identities by this device check are identified on the check.

Uses of Optical Mark Reader

OMR is an input device used to read various signs; at maximum, it is used to check exam sheets; on that sheet, there is a circle called the OMR sheet.

OMR sheet is put on the OMR machine to scan that sign, and after that, it gives the result to the computer.

Optical Mark Reader is Input or Output.

An optical Mark Reader is an input device used to scan documents and various signs.

OMR sheets are used in examinations in which students fill this OMR sheet with a pen or pencil; after that, the OMR sheet is put in the OMR scanner; after that, the answer will be shown.

Full Form of OMR

FULL FORM OF OMR
OPTICAL MARK RECOGNITION

O **M** **R**

Optical   Mark   Reader

Different Types of Optical Mark Reader Sheets
- Single OMR Sheet.
- 3-part OMR Sheet with Answer Booklet.
- OMR Sheet with Variable Data Print.
- OMR Sheet with both sides Printed.

Applications of OMR [Optical Mark Reader]
There are different applications of OMR. Some of them are mentioned below.

#	Applications
1	Admission Forms
2	Survey Forms
3	Examinations
4	Inquiry Form
5	Loan Form
6	Feedback forms
7	Subscription Forms
8	Terms and Conditions forms
9	Product Evaluations
10	Data Compilations

Different Types of Optical Readers
- **Optical Mark Reading (OMR)**
- **Optical Character Recognition (OCR)**

Famous Optical Mark Reader Manufacturing Companies
- Canon
- Epson
- HP

- Fujitsu
- *Kodak*
- Umax

Is Optical Mark Reader Input or Output Device with Images

Frequently Asked Questions [FAQs]

Full Form of MICR?

Magnetic Ink Character Reader.

Full Form of OCR?

Optical Card Reader.

Who Invented OMR?

An American Engineer named Michael Sokalski invented OMR in 1972.

Who Invented OCR?

The OCR is invented by Raymond Kurzweil.

Examples of Optical Devices?

Periscopes, microscopes, telescopes, and cameras.

Three Types of Optical Devices?

CD-ROM, CD-RW, DVD-RW