

Q) MEMS (Micro electromechanical System).

A) systems which combine electrical and mechanical components like micro sensors, micro actuators and signal transduction elements are known as MEMS.

- \* Size : Micrometers to millimeter level.
- \* It is interface with electrical and non-electrical signals.
- \* Sensing and actuation are possible.
- \* MEMS are used to sense, control & activate mechanical processes on the micro scale.

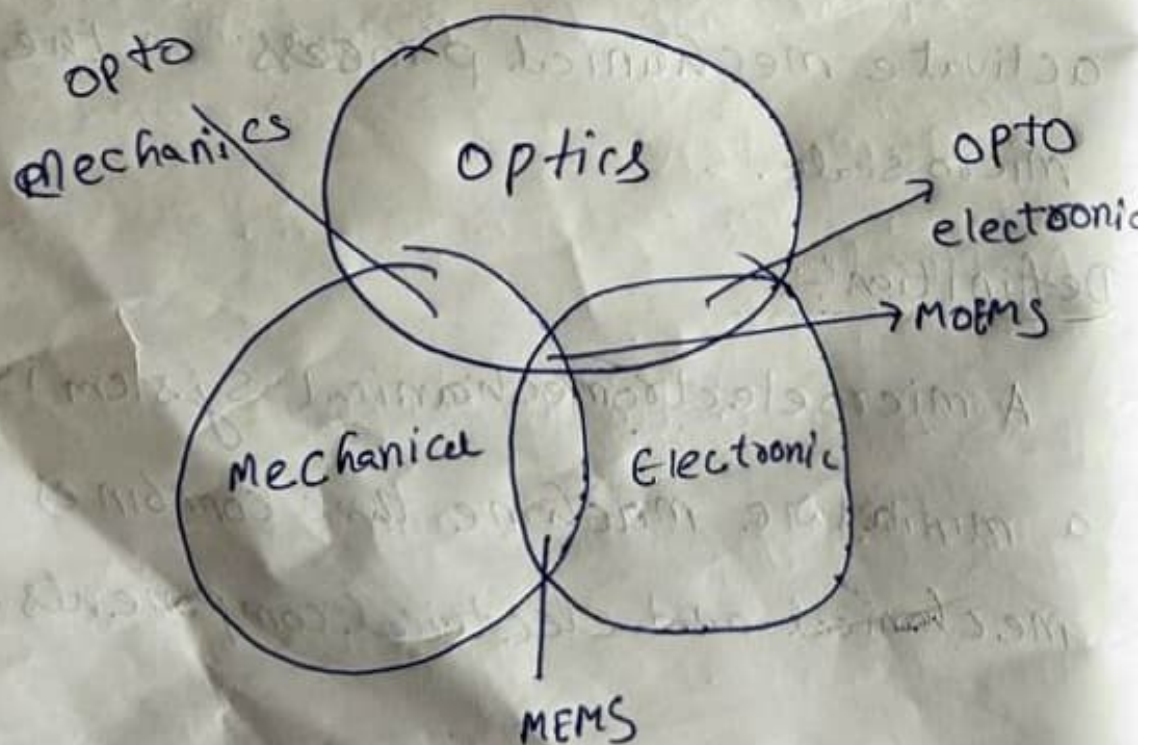
Definition:-

A microelectromechanical system is a miniature machine that combines mechanical and electrical components.

\* Material used: Silicon, Polymers, metal etc.

### Components of MEMS:-

- \* Micro sensors and micro actuators convert energy from one form to another form.
- \* MEMS are used to create tiny devices that combine mechanical and electrical components.
- \* These devices have ability to sense, control and actuate on the micro scale.





## working:-

MEMS consist of micro sensors, micro actuators and micro electronics all are integrated onto the same silicon chip

Micro sensors: detect changes in the system environment.

Micro electronic: process this information and signal.

Micro actuators: react and create some changes to the environment.

## Application:-

- 1) Biomedical
- 2) Military
- 3) Telecom
- 4) Optical
- 5) Aerospace.