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## **4. MicroLEDs**

### **Why in News?**

- Apple is recently working on a new display technology called microLEDs, which is considered the next big thing in the display industry.

### **Highlights**

- MicroLED technology is based on the use of sapphires, which are known for their ability to shine on their own indefinitely.
- The technology involves the use of tiny light-emitting diodes (LEDs) that are packed tightly together to create a bright and high-quality display.
- Unlike OLED displays, microLED displays use inorganic material such as gallium nitride.
- A microLED is as small as cutting a centimetre of hair into 200 smaller pieces. Each of these microLEDs are semiconductors that receive electric signals.
- Once these microLEDs are gathered, they form a module. Several modules are then combined to form screens
- Brighter screens with better colour reproduction and viewing angles.
- Limitless scalability, as microLED displays are resolution-free, bezel-free, ratio-free, and even size-free.
- The ability to freely resize the screen in any form for practical usage.
- Self-emissive microLEDs that individually produce red, green, and blue colours without needing backlighting or colour filters.