Y2K Bug

Why in News

Recently, the Prime Minister mentioned the **Y2K bug** while addressing the nation on **Covid-19** related issues.

Key Points

- **Description:**
    - The Y2K bug was a computer flaw or bug that people during the late 1900s thought would prove to be a massive problem when **dealing with dates beyond December 31, 1999.**
    - The letter K, which stands for kilo (a unit of 1000), is commonly used to represent the number 1,000. So, Y2K stands for Year 2000. It is also called the **'Year 2000 bug or Millennium Bug'.**
    - Y2K was **both a software and hardware problem.**
- **Background:**
    - While writing computer programs during the 1960s to 1980s, computer engineers **used only the last two digits of a year.**
    - For example, "19" was left out from "1999" and only "99" was used. This was done because **storing data in computers was a costly process** that also took up a lot of space.
    - As the new century approached, programmers began to worry that computers might not interpret ''00'' as 2000, but instead as 1900.
    - This led to the idea that all activities that were programmed would be damaged as a computer **would interpret January 1, 1900 instead of January 1, 2000.**
- **Implications:**
    - The sectors such as Information Technology (IT), banking, transportation, power plants, medical equipment, etc. which used to work on correct date and time synchronisation were threatened by the Y2K problem.

- **Solution:**
    - Software and hardware companies raced to fix the bug and provided "Y2K compliant" programs to help.
    - The simplest provided solution was that the **date was expanded to a four-digit number.**
- **Impact:**

    Countries such as Italy, Russia, and South Korea had done little to prepare for Y2K. They had no more technological problems than those countries, like the U.S., that spent millions of dollars to combat the problem. Due to the lack of results, many people **dismissed the Y2K bug as a hoax.**