EVMS - GS II MAINS

Q. Discuss how the EVMs enhance the quality of electoral democracy in India along the backdrop of the recent Supreme Court Verdict. (15 marks, 250 words)

News: *SC thumbs-up for EVMs, declines plea to revive paper ballot*

What's in the news?

- Recently, the Supreme Court upheld the electronic voting machine (EVM) system of polling and refused a plea to revive paper ballots.

Key Takeaways from the Supreme Court Judgment:

1. Rejection to All Petitions:

- The SC refused petitioners' suggestion to hand over paper slips from Voter Verifiable Paper Audit Trail (VVPAT) units to electors to take a close-down look before inserting them into the ballot boxes.
- The Court also refused to intervene against Section 49 MA of the Conduct of Election Rules.
- This section penalises a voter whose complaint of mismatch (of votes cast and votes counted) would attract penal proceedings initiated by poll officials under Section 177 of the Indian Penal Code for submitting false information.
- The Supreme Court also refused to direct the cross-verification of 100% EVMs and VVPATs across the country. Currently, only 5% of EVM-VVPAT counts are randomly verified in any given Assembly constituency.

2. Suggestion for an Electronic Machine for Vote Counting:

- The SC suggested the Election Commission of India (ECI) to examine the suggestion for an electronic machine for vote counting the paper slips and whether along with the symbol, there can be a bar code for each party.

3. Storage of Symbol Loading Units (SLUs):

- After completing the process of loading symbols into the EVMs, the SLUs must be sealed and stored in secure containers and shall be kept in the storerooms along with the EVMs at least for 45 days after the declaration of results.

4. Post-poll Checking:

- The burnt memory semicontroller in 5% of the EVMs that is the Control Unit, Ballot Unit and the VVPAT per assembly constituency per parliamentary constituency shall be checked and verified by a team of engineers after the declaration of results.
- The actual cost to be borne by the candidate making the request. Expenses to be refunded in case the EVMs are found to be tampered with.

5. Voters Right:

- There is the fundamental right of voters to ensure their vote is accurately recorded and counted, however it cannot be equated with the right to 100% counting of VVPAT slips, or a right to physical access to the VVPAT slips.
- These are two separate aspects – the former is the right itself and the latter is a plea to protect or how to secure the right.
- The Court said that voters' rights can be safeguarded through other measures.
- Examples - EVM VVPAT Verification CaseVVPATs were introduced after the judgment in Subramanian Swamy vs. Election Commission of India case.
- The counting of VVPAT slips of 5% EVMs per assembly constituency or assembly segment in a parliamentary constituency was started after directions of the top Court in N. Chandrababu Naidu v. Union of India case.

Significance of EVMs:

1. Booth Capturing Prevention:
- EVMs have significantly reduced instances of booth capturing by limiting the rate at which votes can be cast, making it more challenging for perpetrators to manipulate the voting process.

2. Elimination of Invalid Votes:
- EVMs have effectively addressed the issue of invalid votes, which was a common problem with paper ballots, by providing a more intuitive and user-friendly voting interface.

3. Environmental Benefits:
- With a large electorate like India, EVMs offer environmental benefits by reducing the consumption of paper ballots, thereby promoting eco-friendly electoral practices.

4. Administrative Convenience:
- EVMs provide administrative convenience for polling officers on election day by streamlining the voting process and enabling faster, error-free counting of votes.

5. Random Allocation:
- In India, the Election Commission ensures that EVMs are allocated to polling booths through a transparent and randomised process, enhancing the credibility of the electoral system.

6. Mock Polls:
- Mock polls are conducted to demonstrate the accuracy and functionality of EVMs and Voter Verifiable Paper Audit Trail (VVPAT) machines before actual polling begins.

7. Transparency:
- EVMs ensure transparency in the electoral process by providing candidates' agents with access to serial numbers of EVMs and the total votes polled during counting, enabling verification of election results.

8. Security:

- The Election Commission of India (ECI) has assured the security of EVMs by highlighting their standalone nature without external connectivity, minimising the risk of hacking or tampering.

Challenges with EVMs:

1. Technical Malfunctions:

- One of the primary concerns with VVPAT machines is the possibility of technical malfunctions, leading to inaccurate printing or no printing at all. Instances of malfunctioning machines raise doubts about the reliability and accuracy of the electoral process.

2. Verification of Paper Trails:

- The paper trails generated by VVPAT machines, especially when there are discrepancies between electronic and paper records. It's crucial to ensure that the physical record of the vote cast accurately reflects the voter's intent.

3. Verifiability:

- The current practice of matching EVM counts with VVPAT slips in five booths per assembly constituency/segment has been criticised for not being scientifically grounded, potentially overlooking defective EVMs.

4. Susceptibility to Hacking:

- Concerns about the security of EVMs have been raised by political parties and civil society activists, alleging susceptibility to hacking due to their electronic nature.
- Safeguarding against potential cyber threats is imperative to protect the integrity of elections.

5. Voter Privacy:

- The current process allows for the identification of booth-wise polling behaviour by political parties, raising concerns about voter profiling and intimidation.
- Ensuring voter privacy is essential to uphold the democratic rights of citizens.

6. Lack of Accessibility:

- EVMs pose challenges for certain segments of the population, such as elderly voters or those with disabilities, highlighting the need for inclusive voting mechanisms.

7. High Cost:

- While EVMs aim to streamline the voting process and reduce costs in the long run, the initial investment in procuring and maintaining these machines can be significant.

Way Forward:

1. Machine Audit:

- A machine audit trail of all the commands that are executed is maintained in the system, beyond just the votes recorded in the EVM's ballot unit and the printed slips in the VVPATs, allowing for an audit to rule out any malicious code.

2. Increase in Recounting Samples:

- An increase in the recount sample to make it more statistically significant, by making the selected number of Assemblies specific to each State/Union Territory based on the size of the province.
- Increase the recount sample in seats where the margin of victory is narrow (say, less than 1% of the overall votes).

3. Mock Polls:

- Conduct of a mock poll to display the correctness of EVMs and VVPAT before commencement of the actual poll.

4. Scientific Approach to EVM-VVPAT Matching:

- 100% match of EVM count with VVPAT slips would be unscientific and cumbersome.
- The sample for matching of EVM count and VVPAT slips should be decided in a scientific manner by dividing each State into large regions as suggested by experts.

5. Enhancing Confidence in Counting Process:

- In case of even a single error, the VVPAT slips should be counted fully for the concerned region and form the basis for results.
- This would instill a statistically significant confidence in the counting process.

6. Introducing Totaliser Machines for Enhanced Voter Privacy and Security:

- In order to provide a degree of cover for voters at the booth level, 'totaliser' machines can be introduced that would aggregate votes in 15-20 EVMs before revealing the candidate-wise count.
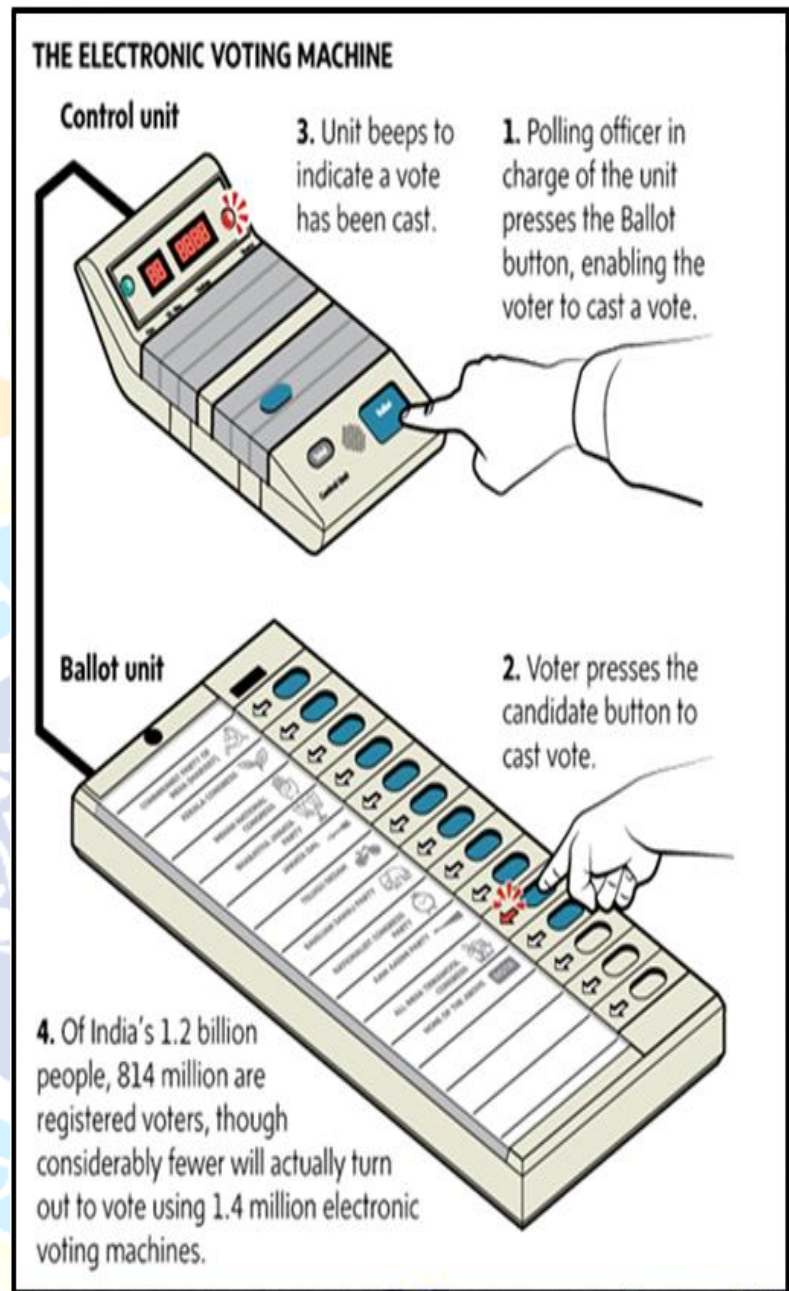
The use of EVMs & VVPAT made the election process more transparent and simpler and contributed to the developmental process by reducing electoral violence, empowering voters, etc. By shoring up its image and bringing in some more transparent reforms, the ECI can restore faith in elections.

Go back to basics:

Electronic Voting Machines:

- An Electronic Voting Machine (EVM) is a simple electronic device that is used to **record votes instead of the ballot papers and boxes** that were previously used in traditional voting systems.
- EVMs were first used in elections to the **Assemblies of Rajasthan**, Madhya Pradesh, and Delhi in 1998 on an experimental basis in selected constituencies.
- In 1999, EVMs were used for the first time in general elections (state-wide) to the **Goa Assembly**.
- To ensure free and fair elections, the Election Commission has begun using **tamper-proof electronic voting machines (EVMs) during 2004 Lok Sabha elections.**
- Instead of issuing a ballot paper with the EVM, the polling officer will press the Ballot Button, allowing the voter to vote.
- A **list of candidate names and/or symbols** will be displayed on the machine, along with a blue button.
- The voter can vote by pressing the button next to the candidate's name.
- An EVM has a maximum capacity of **2,000 votes.**
- If an EVM fails, it is replaced with a new one, and all votes cast up to that point are saved in the control unit's memory.
- The result can be stored in the control unit's memory until it is deleted or cleared.

THE ELECTRONIC VOTING MACHINE

Control unit

3. Unit beeps to indicate a vote has been cast.

1. Polling officer in charge of the unit presses the Ballot button, enabling the voter to cast a vote.

Ballot unit

2. Voter presses the candidate button to cast vote.

4. Of India's 1.2 billion people, 814 million are registered voters, though considerably fewer will actually turn out to vote using 1.4 million electronic voting machines.

Who produced EVMs?

- Bharat Electronics Ltd, Bangalore and
- Electronic Corporation of India Ltd., Hyderabad.

Voter Verifiable Paper Audit Trail:

- VVPAT is an independent verification printer machine and is attached to electronic voting machines.
- It allows voters to verify if their vote has gone to the intended candidate.
- When a voter presses a button in the EVM, a paper slip is printed through the VVPAT.
- The slip contains the **poll symbol and name of the candidate.**
- It allows the voter to verify his/her choice.
- After being visible to the voter from a glass case in the VVPAT for **seven seconds,** the ballot slip will be cut and dropped into the drop-box in the VVPAT machine and a beep will be heard.
- VVPAT machines can be **accessed by polling officers only.**

Q WHAT IS VVPAT?

A. Voter Verifiable Paper Audit Trail (VVPAT) helps voters to physically confirm the choice they have made. It consists of:
- A printer that gives a record of voters' selection
- A display unit that shows any error

Q WHAT THE VVPAT SLIP CONTAINS?

A.
- A candidate serial number
- Name of the candidate
- Corresponding symbol.

VVPAT paper roll is designed for printing **1,500** ballot slips for each election

Q HOW IT WORKS?

A. The printed VVPAT slip is displayed for 7 seconds before it is automatically cut and delivered to a sealed ballot compartment