

## **FREQUENTLY ASKED QUESTIONS ON ELECTRONIC VOTING MACHINES**

### **Q1 What is an Electronic Voting machine? In what way its functioning is different from the conventional system of voting?**

**Ans.** An Electronic Voting Machine consists of two Units – a Control Unit and a Balloting Unit. Balloting unit has a five-meter cable, which is used to join the Control Unit with the Balloting Unit. The Control Unit remains with the Presiding Officer or a Polling Officer and the Balloting Unit is placed inside the voting compartment. The Polling Officer in-charge of the Control Unit presses the 'Ballot' Button provided on the Control unit for releasing the Ballot for the voter. It enables the voter to cast his vote by pressing the 'Candidate' button (blue button) on the Balloting Unit against the candidate and symbol of his choice.

### **Q2 Who has devised the EVMs?**

**Ans.** The EVMs have been devised and designed by Election Commission in collaboration with two Public Sector undertakings i.e., Bharat Electronics Ltd., Bangalore (Ministry of Defence) and Electronic Corporation of India Ltd., Hyderabad (Department of Atomic Energy).

### **Q3. How can EVMs be used in areas where there is no electricity?**

**Ans.** EVMs do not require electricity. EVMs run on an ordinary 7.5 volt alkaline Power -pack (manufactured using 5 AA size cells of 1.5 volt each) supplied by Bharat Electronics Ltd., Bangalore and Electronic Corporation of India Ltd., Hyderabad. Therefore, even in areas with no electricity connections, EVMs can be used.

### **Q4. What is the maximum number of votes, which can be cast in EVMs?**

**Ans.** A maximum of 3840 votes can be cast in old version EVMs (2000-05 model) and 2000 votes in case of new version EVMs (2006 onwards model).

### **Q5. What is the maximum number of candidates, which EVMs can cater to?**

**Ans.** EVMs can cater to a maximum of 64 candidates (including NOTA). There is provision for 16 candidates in one Balloting Unit. If the total number of candidates exceeds 16, a second Balloting Unit can be linked in series to the first Balloting Unit. Similarly, if the total number of candidates exceeds 32, a third Balloting Unit can be attached and if the total number of candidates exceeds 48, a fourth Balloting Unit can be attached to cater to a maximum of 64 candidates (Including NOTA). In EVMs manufactured after 2013(Upgraded Post-2006 version) 24 Balloting units can be attached to one control unit catering to a maximum of 384 candidates (including NOTA).

### **Q6. What is the cost of the EVM? Is it not too expensive to use EVMs?**

**Ans.** The cost of one EVM (One Control Unit, one Balloting Unit)  
1989-90 model EVM- Rs. 5,500/- per unit  
2000-05 model EVM- Rs.8,670/- per unit  
2006 onward model EVM- Rs. 8,670/- per unit (Tentative Cost)  
.....excluding excise duty, sales tax and transportation etc.

Even though the initial investment is somewhat high, this is subsequently neutralized by the savings in the matter of printing of Ballot papers in lakhs, their transportation, storage etc., and the reduction in the counting staff and the remuneration paid to them.

**Q7. In our country a sizeable section of the population being illiterate. Will it not cause problems for the illiterate voters?**

**Ans.** In fact, voting by EVMs is simpler compared to the conventional system, where one has to put the voting mark on or near the symbol of the candidate of his choice, fold it first vertically and then horizontally and thereafter put it into the Ballot box. In EVMs, the voter has to simply press the blue button against the name of the candidate and symbol of his choice and the vote is recorded. Rural and illiterate people had no difficulty in recording their votes and, in fact they have welcomed the use of EVMs.156 157

**Q8 With Ballot boxes counting is done after mixing the Ballot papers. Is it possible to adopt this system when EVMs are used?**

**Ans.** Yes, it is possible by using a device named 'Totalizer'. Totalizer can accommodate upto 14 control units at a time to count votes, without revealing the candidate-wise count of individual control unit. But, presently this is not used because for using 'Totalizer' amendment in law is required. The same is pending with the Ministry of Law & Justice, Govt. of India.

**Q9 How long the Control Unit stores the result in its memory?**

**Ans.** The Control Unit can store the result in its memory for 10 years and even more.

**Q10 Is it possible to vote more than once by pressing the button again and again?**

**Ans.** No. As soon as a particular button on the Balloting Unit is pressed, the vote is recorded for that particular candidate and the machine gets locked. Even if one presses that button further or any other button, no further vote can be recorded, unless 'Ballot' button provided on the Control Unit is pressed to release the Ballot. This way the EVMs ensure the principle of "one man, one vote".

**Q11 How can a voter be sure that the EVM is working properly and his vote has been recorded correctly?**

**Ans.** As soon as the voter presses the 'Candidate' button (blue button) on the Balloting unit against the name of the candidate and symbol of his choice, a tiny red lamp glows against the name and symbol of the candidate for whom vote is cast and simultaneously a long beep sound is heard. Thus, there are both audio and visual indications for the voter to be assured that EVM is working properly and his vote has been recorded correctly.

**Q12 In the conventional system, it will be possible to know the total number of votes polled at any particular point of time. In EVMs 'Result' portion is sealed and will be opened only at the time of counting. How can the total number of votes polled be known on the date of poll?**

**Ans.** In addition to the 'Result' button, there is a 'Total' button on EVMs. By pressing this

button the total number of votes polled upto the time of pressing the button will be displayed without indicating the candidate-wise tally.

**Q13 The Balloting Unit has provision for 16 candidates. In a constituency, there are only 10 candidates. If the voter presses any of the buttons from 11 to 16, will it not lead to wastage of votes?**

**Ans.** No. If there are only 10 candidates in a constituency, the 'Candidate' buttons provided at Sl. No. 11 to 16 shall be masked at the time of preparation of EVM by Returning Officer. Therefore, there is no question of any voter pressing any of the buttons for candidates 11 to 16.

**Q14 Ballot boxes are engraved so as to avoid any scope for complaint of replacement of these boxes. Is there any system of numbering EVMs?**

**Ans.** Yes. Each Control Unit and Balloting Unit has a unique ID Number, which is engraved on each unit. The list containing ID number of EVM (Balloting Unit & Control Unit) to be used in a particular polling station is prepared and provided to the contesting candidates/their agents.

**Q15 In the conventional system, before the commencement of poll, the Presiding Officer shows to the polling agents present there that the Ballot box to be used in the polling station is empty. Is there any such provision to satisfy the polling agents that there are no votes already recorded in the EVMs?**

**Ans.** Yes. Before the commencement of poll, the Presiding Officer demonstrates to the polling agents that there is no vote already recorded in the machine by pressing the total button. Thereafter, he conducts a mock poll by asking the polling agents to record their votes and takes the result to satisfy them that the result shown is strictly according to the choice recorded by them. Thereafter, the Presiding Officer presses the clear button. It clears the result of the mock poll before commencing the actual poll. He then again shows to polling agents, by pressing 'Total' button that it shows '0'. Then he seals the Control Unit.158 159

**Q16 How can one rule out the possibility of recording further votes at any time after close of the poll and before the commencement of counting by unscrupulous elements?**

**Ans.** After completion of poll i.e. when the last voter has voted, the Officer in-charge of the Control Unit presses the 'Close' Button. Thereafter, the EVM does not accept any vote. After the close of poll, the Control Unit is switched off and thereafter the Balloting Unit is disconnected from the Control Unit and kept separately in the respective carrying cases and sealed. Further, the Presiding officer has to hand over to each polling agent a copy of the account of votes recorded. At the time of counting of votes, the total votes recorded in a particular control unit is tallied with this account and if there is any discrepancy, this can be pointed out by the Counting Agents.

**Q17 When was the EVM first used in elections?**

**Ans.** EVMs were first used in 50 polling stations of Parur Assembly Constituency during General Election of the Kerala Legislative Assembly held in May, 1982.

**Q18 Whether EVMs are being used regularly in elections since 1982?**

**Ans.** No. After 1983, the machine could not be used till November, 1989, as the Hon'ble Supreme Court ruled in an Election Appeal (A.C. Jose Vs. Sivan Pillai & other- AIR 1984 SC921), challenging the use of the EVMs in Parur Assembly Constituency during General Election of the Kerala Legislative Assembly held in May, 1982, that for electronic recording of votes, there should be specific provision in the law to give legal sanctions for the use of EVMs.

**Q19. Whether use of EVMs in an election is legal or not?**

**Ans.** Use of EVMs in an election is legal. In December, 1988, a new Section 61A was inserted in the Representation of the People Act, 1951 empowering the Election Commission to use electronic voting machines.

**Q20 Whether matter regarding use of EVMs was examined by any Committee or not? If yes, the decision of the said Committee.**

**Ans.** The matter regarding use of EVMs was referred by the Government of India to Electoral Reforms Committee, appointed by the Central Government in February, 1990 consisting of several recognized National and State Parties. The EVMs were demonstrated before that Committee and, though the Committee was satisfied about their functioning, it appointed a Technical Experts Committee, consisting of Prof. S. Sampath, the Chairman, RAC, Defence Research and Development Organization, Prof. P.V. Indiresan, IIT Delhi and Dr. C. Rao Kasarbada, the Director Electronics Research and Development Centre, Trivandrum, for technical evaluation of the machines. The aforesaid Technical Experts Committee examined the EVMs and they recommended for the EVMs.

**Q21. What will happen if the EVM in a particular polling station goes out of order?**

**Ans.** On poll day Zonal/Area/Sector Magistrates keep on patrolling with reserved EVMs. In case, EVM of a particular polling station goes out of order then the same is replaced with a new one. The votes recorded until the stage when the EVM went out of order remains safe in the memory of the Control Unit and it is sufficient to proceed with the polling after replacing the EVM with new EVM and there is no need to start the poll from the beginning. On counting day, both EVMs are counted to give the result of that polling station.

**Q22 Can booth – capturing/mass rigging be prevented by the use of EVMs?**

**Ans.** Booth capturing/mass rigging by miscreants to intimidating the polling personnel and stamping the Ballot papers on the symbol and escaping in a matter of minutes, this can be prevented by the use of EVMs. The EVMs are programmed in such a way that the EVM can record only five votes in a minute. As recording of votes has necessarily to be through Control Unit and Balloting Unit, whatever be the number of miscreants they can record vote only at the rate of 5 per minute. In the case of Ballot papers, the miscreants can distribute all the 1000 odd Ballot papers assigned to a polling station, among themselves, stamp them, stuff them into the Ballot Boxes 160 161 and run away before the police reinforcements reach. In half-an-hour, the miscreants can record only a maximum of 150 votes by which time; chances are the police reinforcement would have arrived. Further, the Presiding Officer or one of the Polling Officers can always press the "close" button as soon as they see

some intruders inside the polling station. It will not be possible to record any vote when once the 'close' button is pressed and this will frustrate the efforts of the booth-capturers.

**Q23 What are the advantages of using EVMs?**

**Ans.** The most important advantage is that the printing of millions of Ballot papers can be dispensed with, as only one Ballot paper is required for fixing on the Balloting Unit at each polling station instead of one Ballot paper for each individual elector. This results in huge savings by way of cost of paper, printing, transportation, storage and distribution. Secondly, counting is very quick and the result can be declared within 2 to 3 hours as compared to 30-40 hours, on an average, under the conventional system. Thirdly, there are no invalid votes under the system of voting with EVMs. Previous General Elections result show that the number of invalid votes was more than the winning margin between the winning candidate and the second candidate, in a number of constituencies. To this extent, the choice of the electorate is more correctly reflected when EVMs are used.

**Q24 Is it possible to program the EVMs in such a way that initially, say upto 100 votes, votes will be recorded exactly in the same way as the 'blue buttons' are pressed, but thereafter, votes will be recorded only in favor of one particular candidate irrespective of whether the 'blue button' against that candidate or any other candidate is pressed?**

**Ans.** The programme is burnt in the one time programmable/masked chip, which cannot be read. Further, rewriting of program also cannot be done by anyone. Thus, there is absolutely no chance of re-programming the EVMs in a particular way to select any particular candidate or political party.

**Q25 Whether the EVMs can reveal the data that who voted for whom?**

**Ans.** The ECI-EVMs have the facility to reveal that who voted for whom by using a device called 'decoder' which when attached to the EVM can print out statement of voting data showing the order in which the voters voted and to whom (i.e. the serial number pertaining to the particular candidate in the Ballot paper) they voted. But these decoders are never allowed to be put to use as revealing of any such information will violate the secrecy of voting provided under the law. Only on the orders of competent courts, such information can be printed and shown.

**Q26 Whether polled data stored in the EVMs can be manipulated?**

**Ans.** No, The EVM is both mechanically and electronically protected to prevent any tampering/manipulation. The programme (software) used in these EVM is burnt into a One Time Programmable/Masked chip (Hardware) so that it cannot be altered or tampered with. Further these EVMs are not linked either by wire or by wireless system to any other machine or system. Therefore, there is no possibility of manipulation of data.

**Q27 Whether EVMs are checked before using in an election or not?**

**Ans.** Yes. Before elections, First Level Checking (FLC) is done for each EVM by the engineers of manufacturing firms of EVM i.e. M/s Bharat Electronics Limited, Bangalore and M/s Electronics Corporation of India Limited, Hyderabad, to find out any defects. All defective EVMs are kept separately and not used in the election. The FLC is done in presence of representatives of all recognized political parties and is videographed. There are very

elaborate guidelines for 'Protocol of the FLC'. After FLC, Pink Paper Seal is affixed appropriately on the Control Unit, so as to ensure that Control Unit can't be opened without damaging this seal. If later at any stage, this seal is found damaged than that EVM is not used for taking poll.

**Q28 Is there any system of allocation of EVM to an Assembly Constituency?**

**Ans.** After First Level Checking of EVMs, the District Election Officers fix up a schedule for randomization of CUs/BUs for distribution of EVMs to Assembly Constituencies in the presence of the representatives of recognized political parties. The randomization 162 163 is done by using a Computer in such a way that the CUs/BUs are randomly selected by grouping them to match the poll day requirement including reserve required for each constituency. After first randomization of EVMs, EVMs are stored safely in a Strong Room under very strict security arrangements.

**Q29 Who prepares the EVMs for use in poll and when?**

**Ans.** After finalization of the names of contesting candidates, the Ballot papers for EVMs are printed. Thereafter, the Returning Officers prepare the EVMs. On the day fixed for preparing the CUs/BUs for use in the election, the Returning Officers ensure that the preparation of CUs/BUs is done invariably in the presence of the candidates or their agents or their authorized representatives and also in the presence of the Commission's Observer. Multilevel thread sealing of various compartments/sections of EVMs is done by Returning Officer during preparation of EVMs in the presence of the candidates/ their authorized agents:

1. Thread seal for the "Candidate Set" and Power Pack (Battery) Section of Control Unit after setting of number of contesting candidates and installation of battery.
2. Thread seal for Ballot paper screen of Balloting Unit after fixing of Ballot paper.
3. Thereafter, two thread seals for Ballot paper cover of Balloting Unit.

Thereafter, the Returning Officers do the second randomization of the CUs/BUs to allot the CU/BU to specific polling stations. After that they write the polling station number to which the BU/CU has been randomly allotted in the slot provided for it in the sticker as well as in Address Tags.

**Q30 Where are EVMs stored after preparation of EVMs by Returning Officer?**

**Ans.** The EVMs prepared in aforesaid manner are stored in a strong room in the presence of the candidates/their agents and the Commission's Observer. The candidates/their agents are allowed to put their seals on the locks of the strong room. A log book is maintained and foolproof security arrangements are made.

**Q31 When is the strong room opened to despatch the EVMs to their respective polling stations?**

**Ans.** After storing of EVMs in the strong room, it is opened, again in the presence of candidates/their agents and Observer, on the day when the polling parties are dispatched to their respective polling stations.

**Q32 Is there any provision to verify the functioning of EVM at polling station?**

**Ans.** Before actual poll, to ensure that EVM is working properly and to clear doubts of the candidates/their authorized agents mock poll is conducted by the Presiding Officer in the presence of the candidates/their authorized agents and mock poll certificate is issued. This is done one hour before scheduled time for commencement of poll.

**Q33 Is there any provision of sealing the EVM at polling station?**

**Ans.** After mock poll, the Presiding Officer seals the Result Section/Bottom Compartment of Control Unit using:-

1. Green paper seal for result section
2. Thread seal for inner door of result section
3. Thread seal for Bottom compartment
4. Thread seal for connector box for cascading Balloting Unit, if any (when there are more than 16 candidates).

**Q34 Where are EVMs stored after poll and before counting?**

**Ans.** After the conduct and close of poll, the polled EVMs are transported under security to the strong room located in the premises of Counting Centre. The candidates/their agents are allowed to follow the vehicles carrying polled EVMs. After all EVMs are 164 165 stored in the storage hall, it is sealed in the presence of the candidates/their agents and the Commission's Observer. The candidates/their agents are permitted to affix their own seals on the locks of the storage hall. In the intervening period, the candidates/their agents are allowed to keep a round-the-clock watch on the storage hall.

**Q35 When is strong room opened after storing polled EVMs?**

**Ans.** The strong room is opened; again in the presence of the candidates/their agents and the Commission's Observer on the day of counting of votes.

**Q36 Where are EVMs stored after counting of votes?**

**Ans.** After counting of votes, the EVMs are stored in the strong room; again in the presence of the candidates/their agents and the Commission's Observer.