

1B) An election is contested by five candidates. The candidates are numbered 1 to 5 and a voting is done by marking the candidate number in a ballot paper. Write a c++ program to read the ballot and count the votes cast for each candidate using an array variable count. In case a number read is outside the range 1 to 5 the ballot should be considered as a spoilt ballot and the program should also count the number of spoilt ballots.

```
#include <iostream>
int main() {
    const int numCandidates = 5;
    int count[numCandidates] = {0}; // Initialize counts to zero for each candidate
    int spoiltBallots = 0;
    int numVotes;
    std::cout << "Enter the number of votes: ";
    std::cin >> numVotes;
    for (int i = 0; i < numVotes; ++i) {
        int vote;
        std::cout << "Enter vote" << i + 1 << ": ";
        std::cin >> vote;

        if (vote >= 1 && vote <= numCandidates) {
            // Valid vote for a candidate
            count[vote - 1]++;
        } else {
            // Spoilt ballot
            spoiltBallots++;
        }
    }

    std::cout << "Vote counts for each candidate:" << std::endl;
    for (int i = 0; i < numCandidates; ++i) {
        std::cout << "Candidate " << i + 1 << ": " << count[i] << " votes" << std::endl;
    }
    std::cout << "Spoilt ballots: " << spoiltBallots << std::endl;

    return 0;
}
```