

Polling Quiz MCQs:

1. If an algorithm takes maximum amount of time to run to completion then it is referred as

- Option 1: best case time complexity
- Option 2: average case time complexity
- Option 3: worst case time complexity
- Option 4: all of the above
- Option 5: none of the above

Correct Option: 3

2. Which of the following notation is used to represent asymptotic tight bound?

- Option 1: Big Oh (O)
- Option 2: Big Omega (Ω)
- Option 3: Big Theta (θ)
- Option 4: None of the above

Correct Option: 3

3. In a linear search algorithm, worst case occurs:

- Option 1: If the key element is exist at first position in a collection/list.
- Option 2: If the key element is exist at last position in a collection/list.
- Option 3: If the key element does not exist in the list.
- Option 4: If either the key element exist at last position or does not exist in the list.

Correct Option: 4

4. What is an asymptotic average case time complexity of a linear search algorithm?

- Option 1: $O(n)$
- Option 2: $O(n/2)$
- Option 3: $\theta(n)$
- Option 4: $\theta(n/2)$

Correct Option: 3

5. An average case time complexity of a binary search algorithm is:

- Option 1: $O(\log n)$
- Option 2: $O(n)$
- Option 3: $\theta(\log n/2)$
- Option 4: $\theta(\log n)$

Correct Option: 4