**Q.no.1) what are the errors that arise while implementing the algorithm?**

**Answer**: The errors that arises while implementing algorithms are

**Completeness**: An algorithm is said to be complete if it definitely finds solution to the problem, if exist.

**Time Complexity**: How long (worst or average case) does it take to find a solution? Usually measured in terms of the number of nodes expanded

**Space Complexity**: How much space is used by the algorithm? Usually measured in terms of the maximum number of nodes in memory at a time

**Optimality/Admissibility**: If a solution is found, is it guaranteed to be an optimal one? For example, is it the one with minimum cost?

**Q.No.2) what is API? Why it is important in effective programming? Explain the implementation procedure of API in programming.**

**Answer:** API stands for Application program interface which defines interactions between multiple software intermediaries. It defines the kinds of calls or requests that can be made how to make them the data format.

**Importance of API is:**

1. Help build brand loyalty

2. Increase interest in companies’ product

3. Provide useful tools to consumers

4. Increase revenue

5. Extend customer reach and value

**Some of the implementation of API in programming is:**

1. Application programming Interface defines the types of API.
2. Application programming Interface defines domain.
3. Create Application programming Interface and its resources.
4. Publishing the application program oracle.
5. Publishing the API Blueprint to Git hub.