## Procedural vs Object Oriented Programming:-

The objective of procedural programming is to break down a
program into a collection of variables, data structures whereas
the main aim of object-oriented programming is to break down a
programming task into objects. In simple words, procedural
programming uses procedures to operate on data structures, while
object-oriented uses objects for the purpose.

| Parameters | Procedural Programming | Object-oriented Programming |
|---|---|---|
| Focus | Process and functions | Data and classes |
| Maintenance | Not easy to maintain | Easy to maintain |
| Modification Maintenance | Difficult to find and maintain sub-procedures | Easy maintenance and modification of existing code |
| Development Time | Increased due to complexity | Reduced due to easy maintenance |
| Speed | Slower compared to object-oriented | Faster and more effective |
| Constructs | Procedures, modules, procedure calls | Objects, classes, messages |
| Priority | Procedure-focused | Data-focused |
| Reusability | Designs cannot be reused and recycled | Designs can be reused throughout the program |
| Issue Resolution | Issues need to be addressed individually | Objects and classes can be referenced throughout the program |
| Data Hiding | Not possible | Possible, providing more security than procedural |

| | | |
|---|---|---|
| **Operator Overloading** | Not allowed | Allowed |
| **Inheritance** | Not applicable | One of the main concepts along with Abstraction, Encapsulation, and Polymorphism |
| **Connection** | Parts connected via parameter passing | Functions of objects connected via message passing |