Misconceptions

Module-4	
Misconception 1.	**File input/output (I/O) procedures are only appropriate for manipulating textual files.**
Correct Explanation	The File I/O operations in Java provide the capability to manage a diverse range of file types, including binary files in addition to text files.
Misconception 2.	**The use of multithreading consistently enhances the performance of a programme.**
Correct Explanation	Although multithreading has the potential to enable concurrent execution and provide performance improvements, this outcome is not always guaranteed. The lack of effective thread management or the presence of activities that are not conducive to parallel execution may result in limited performance improvements and perhaps lead to performance worse owing to associated overheads.
Misconception 3.	**Generics are a sophisticated approach to doing tasks that might otherwise be achieved using object class types.**

Correct Explanation	Generics have the advantage of type safety, which guarantees that compile-time checks are in place to avoid any possible runtime class cast errors. They enable developers to produce code that is clearer, more manageable, and less prone to errors.
Misconception 4.	**Annotations in the Java programming language serve as comments and do not have any impact on the execution of the code.**
Correct Explanation	Annotations play a crucial role in providing information that may have influence over the treatment of certain code components by frameworks, libraries, and even the Java compiler. Comments in contemporary Java programming provide a crucial function that extends beyond mere annotations.
Misconception 5.	**JDBC represents the exclusive method for establishing connections between Java programmes and databases.**

Correct Explanation	The Java Database Connectivity (JDBC) is a widely accepted and standardised application programming interface (API) that facilitates the connection between Java programming language and relational databases.Nevertheless, it is worth noting that there are other frameworks and object-relational mapping (ORM) technologies, such as Hibernate, which may effectively streamline the process of establishing connections with databases, typically by leveraging or abstracting the underlying JDBC technology.