

<p>Object Oriented Programming</p> <p>Quiz 2</p> <p>Section: 65_G</p> <p>Spring 2025</p>		
1.	<p>Consider a Library Management System that keeps track of books, members, and librarians. The system needs to allow members to borrow and return books, and librarians to manage the process. Now, define at least three classes related to this system. Each class should have appropriate attributes and methods. You are free to decide which roles are represented by the classes.</p> <p>Tasks:</p> <ol style="list-style-type: none"> 1. Define the three classes Book, Member, and Librarian with appropriate attributes and methods. 2. Initialize objects of each class and demonstrate accessing their attributes and methods. 3. Draw the UML class diagram for the given classes, including attributes. methods. 	7
2.	<p>Define the concept of a method and its types. How is method overloading achieved in object-oriented programming (OOP)? Provide a clear Java code example that demonstrates method overloading. Your example should include at least two overloaded methods within a class that perform similar tasks. Given the code you wrote, draw the UML diagram representing the class and the overloaded methods.</p>	5
3.	<p>Explain how encapsulation achieves data hiding and abstraction together by providing a brief Java code example to demonstrate both concepts.</p>	3