MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Assignment No.-2.

Subject Name:	Advanced Java Programming
Subject Code:	CIE-306T

Max Marks:20

Unit 3 (CO3)

Q1. Explain the architecture of Java Server Pages. Discuss how JSPs are translated into servlets and executed by the servlet container. Illustrate the interaction between JSP pages, servlets, and web servers. **(3)**

Q2. Develop a JSP page that uses both scriptlets and expressions to manipulate data. Implement a simple calculation or data transformation within the JSP. Discuss the readability and maintainability of code using scriptlets. **(4)**

Q3. Develop a JSP page that uses directives such as page, include, or taglib. Discuss the purpose of each directive and how they impact the behavior of the JSP page. Provide examples of scenarios where directives are useful. **(3)**

Unit 4 (CO4)

Q4. Discuss the challenges and strategies associated with parameter passing in remote methods. Explain how Java handles parameter passing in RMI and the considerations for passing complex objects between the client and server. Provide examples to illustrate these concepts. **(3)**

Q5. Implement a simple client-server interaction in Java. Create a server program that listens for client connections and a client program that establishes a connection to the server. Exchange a basic message between the client and server. **(4)**

Q6. Describe the components of the Hibernate architecture. Discuss the roles of Session Factory, Session, Transaction, and Persistent Objects. Explain how Hibernate manages the mapping between Java objects and database tables. **(3)**