Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2022

Subject Code:2160707   **Date:03/06/2022**
Subject Name:Advanced Java
Time:10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

Q.1	**(a)**	How MVC architecture is better than conventional approach?	**03**
	(b)	List out and describe advantages of J2EE	**04**
	(c)	Why Native JDBC api driver is better than other type of JDBC Driver? Write jdbc code to connect, select and print resultset data of employee database on browser using servlet.	**07**
Q.2	**(a)**	Discuss the difference between the Socket and ServerSocket class.	**03**
	(b)	Discuss the use of GET and POST method in servlet with code snippet.	**04**
	(c)	When callable statement is used? Write java servlet to store data in database using callable statement.	**07**
		OR	
	(c)	List out methods used in servlet lifecycle. Write a servlet which retrieve students marksheet data based on student registration number entered from result.html html page and print on browser screen.	**07**
Q.3	**(a)**	What is session? List the different ways to manage the session.	**03**
	(b)	Explain difference between ServletConfig and ServletContext object.	**04**
	(c)	Elaborate BLOB Data type. Write java servlet to insert employee personal data with photograph using BLOB data type.	**07**
		OR	
Q.3	**(a)**	Explain Following JSP directive (i) page (ii) include (iii) taglib with attribute, description.	**03**
	(b)	Discuss JSP life cycle phases.	**04**
	(c)	List the JSF validation tags and explain any two.	**07**
Q.4	**(a)**	List advantages of JSP over Servlet	**03**
	(b)	Discuss functionality of Java Beans. Write a JSP Page to demonstrate Java Bean.	**04**
	(c)	Draw and explain Spring Framework Architecture.	**07**
		OR	
Q.4	**(a)**	Discuss JSP Exception Handling.	**03**
	(b)	Explain JSP Object scope: (i) Page (ii) Request (iii) Session (iv) Application with example.	**04**
	(c)	Write a client server socket program to retrieve server time on client request.	**07**
Q.5	**(a)**	Write and discuss web.xml file parameter.	**03**
	(b)	Write servlet which displayed following information of client. I. Client Browser II. Client IP address III. Client Port No	**04**

IV. Query String name and values

(c) Discuss Hibernate architecture. Write appropriate java classes/code to **07** retrieve student data from database.

OR

Q.5 **(a)** Write lines of code in JSP for following. **03**
I. Session read and write
II. URL rewriting sending and retrieving parameter(s)
III. URL redirection

(b) What is HQL? How does it different from SQL? **04**

(c) Write a client server socket program to retrieve file from server on client **07** request. If file is not available valid message is sent to client.

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