

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– VI (NEW) EXAMINATION – WINTER 2021****Subject Code:2160707****Date:26/11/2021****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) Draw and explain MVC architecture. **03**  
(b) Write a Web application using servlet to reverse the input number. **04**  
(c) Describe JDBC component and architecture. **07**

- Q.2** (a) What is a statement? What are the different types of JDBC Statements? **03**  
(b) Write a Web application using servlet to find whether entered String is palindrome or not. **04**  
(c) Describe functionality of Cookie with respective methods. How to implement cookie in JSP ? Demonstrate using JSP Code. **07**

**OR**

- (c) Define Session. Write a Java servlet which store items in shopping carts and generate invoice at end to demonstrate Session. **07**

- Q.3** (a) How Internationalization is handled by Java? **03**  
(b) Discuss URL and URL Connection class with java code snippets **04**  
(c) Elaborate BLOB Data type. Write java code to insert and retrieve BLOB data type values. **07**

**OR**

- Q.3** (a) Explain JSP (i) page (ii) include (iii) taglib directive with attribute, description. **03**  
(b) Discuss Object Serialization with one example. **04**  
(c) Elaborate CLOB Data type. Write java code to insert and retrieve CLOB data type values. **07**

- Q.4** (a) List out classes of javax.servlet.http package. **03**  
(b) Discuss functionality of Java Beans. Write a JSP Page to demonstrate Java Bean. **04**  
(c) Develop a jsp code which store and retrieve product detail from web page and stores/retrieve it in Mysql database **07**

**OR**

- Q.4** (a) List out interfaces of javax.servlet.http package. **03**  
(b) Explain JSP Object scope: (i) Page (ii) Request (iii) Session (iv) Application with example. **04**  
(c) Write a servlet code to demonstrate prepare statement and callable statement to retrieve and store bank account operations. **07**

- Q.5** (a) Discuss Hibernate Query Language. **03**  
(b) Write a Java Servlet to retrieve stock price using JSP Tags. **04**  
(c) What is JSTL? Explain following tags in JSTL with example : (i) SQL (ii)Function **07**

**OR**

<b>Q.5</b>	<b>(a)</b>	Discuss JSF Converter Tag.	<b>03</b>
	<b>(b)</b>	Explain features of JSTL.	<b>04</b>
	<b>(c)</b>	Elaborate Java Spring Framework Architecture.	<b>07</b>

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