

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 6 – EXAMINATION – SUMMER 2026

Subject Code: 3160707

Date: 01/06/2026

Subject Name: Advanced Java Programming

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) What are the components of URL? Show the use of URL class with an example. **03**
 - (b) What is JSP? Explain the stages of JSP life cycle. **04**
 - (c) Write a concurrent client server program using TCP where the client sends a line of a text message and the server responds by displaying the received message in capital letters. **07**
- Q.2**
- (a) Differentiate ServletConfig and ServletContext. **03**
 - (b) Write a code snippet to show the use of PreparedStatement. **04**
 - (c) What do you mean by session tracking? Discuss various session tracking techniques. **07**
- OR
- Q.2**
- (c) Discuss the architecture of Hibernate. **07**
- Q.3**
- (a) What is the difference between include directive tag and jsp:include action tag? **03**
 - (b) Explain the use of different JSP action tags. **04**
 - (c) Demonstrate the use of JavaBeans in JSP. **07**
- OR
- Q.3**
- (a) What is EL? Write a code snippet to show the use of method expressions in JSP page **03**
 - (b) What is filter? Explain the configuration of filter using deployment descriptor. **04**
 - (c) Demonstrate the use methods forward () and include () using Servlet. **07**
- Q.4**
- (a) How will you use <h:commandButton> and <h:dataTable>? **03**
 - (b) List the JSF validation tags and explain any two in detail. **04**
 - (c) What is JSTL? Explain the core tags of the SQL tag library **07**
- OR
- Q.4**
- (a) Explain the use of any three implicit objects of JSP. **03**
 - (b) What are the directive tags in JSP? Explain any two. **04**
 - (c) Explain the JSF request processing life cycle. **07**
- Q.5**
- (a) What are the features of Spring Framework? **03**
 - (b) Explain the role of IoC container in Spring framework. **04**
 - (c) List out and explain the steps to develop the hibernate web application. **07**

OR

Q.5	(a) What is HQL? How does it differ from SQL?	03
	(b) What is OR mapping? Briefly explain the components of hibernate.cfg.xml file.	04
	(c) Explain the architecture of Spring Framework.	07
