

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2023****Subject Code:3161609****Date:14-07-2023****Subject Name:Enterprise Application Development****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 various components of J2EE application architecture? **03**
- (b) What is ORM Framework and how is JPA related to that? **04**
- (c) Explain JSF request processing life cycle. **07**
- Q.2** (a) Write a code snippet to explain the use of JSF validators. **03**
- (b) Explain the configuration of web application using web.xml file to use servlet and EJB. **04**
- (c) Explain the life cycle of stateful and stateless session beans. **07**
- OR**
- (c) What are transaction attributes? Which transaction attributes should be used in which situations? **07**
- Q.3** (a) What is JMS? What are the components of JMS API? **03**
- (b) How does a sender application transport/send a message through JMS? **04**
- (c) What is JSON-B? Demonstrate the use of JSON-B for parsing java objects to/from JSON. **07**
- OR**
- Q.3** (a) What advantages does JSON have over XML? **03**
- (b) Write a JSON code to convert a string into a Date using reviver function. **04**
- (c) What is Message Queue? Briefly explain Message Service Architecture. **07**
- Q.4** (a) What do you understand by RESTful Web Services? What are the features of it? **03**
- (b) What do you mean by dependency injection in EJB? Explain annotations which are used for dependency injection in EJB. **04**
- (c) Explain the working of Microservice Architecture in J2EE. **07**
- OR**
- Q.4** (a) What are the key requirements of a JAX-WS Web Service endpoint? **03**
- (b) What is JPA? Explain persistence life cycle of an object? **04**
- (c) Explain developing and deploying an EJB Web service. **07**

- Q.5** (a) Differentiate ServletConfig and ServletContext. **03**
(b) Write a code to implement Open event for a connection using WebSocket. **04**
(c) Demonstrate the use of Servlet Filter. **07**

OR

- Q.5** (a) What is Servlet Listener? How will you use it? **03**
(b) Write a code to implement WebSocket actions send() and close() for an open connection using WebSocket. **04**
(c) Demonstrate the use of ServletRequestDispatcher and its methods include and forward. **07**
