

2311000701020002
EXAMINATION DECEMBER 2024
MASTER OF SCIENCE (INFORMATION AND
COMMUNICATION TECHNOLOGY) (FIRST SEMESTER)
ENTERPRISE JAVA (NEW) - LEVEL 2

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **MASTER OF SCIENCE (INFORMATION AND COMMUNICATION TECHNOLOGY) (FIRST SEMESTER)**
 - b. Name of the Subject : **ENTERPRISE JAVA (NEW) - LEVEL 2**
 - c. Subject Code No : **2311000701020002**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Answer the following Questions in brief. (Any 8)

16

- a) Write a short note on Web Listeners.
- b) Write the steps to develop custom tag in jsp.
- c) What is the difference in working with JDBC and JPA?
- d) Write a short note on Asynchronous EJB operations.
- e) How Java EE handles the events based on Calender and Time
- f) Write the difference between local and remote beans.
- g) What are Fetch Types in JPA? How they can be used?
- h) Write a short note on OAuth and OpenID Connect
- i) Explain the importance of using Generic Types in using Rest Client for getting data collections

Q.2 Do as directed (Any three)

18

- a) Explain the terms and usage of Cookies, Session and Request Dispatcher in Servlets
- b) Explain core and sql tags in JSTL/EL
- c) Explain the use Java Beans to validate forms in JSP with a suitable example
- d) Explain the working of Web Filters with suitable code and example

Q.3 Do as directed (Any Three)

18

- a) Explain Persistence unit, Persistence Context, Entity Manager and Queries with their methods and examples.
- b) What is persistence context and how entities are mapped into it. Write a code to add, remove and retrieve the data from Many to Many Relationship entities and how Java EE maps it in the Persistence API
- c) Explain the lifecycle of Stateless and Singleton EJB
- d) Explain the life cycle and working of message driven beans.

Q.4 Do as directed (Any three)

18

- a) Explain the working of JSF with its design pattern and life cycle
- b) Write a note on Validators and Converters. Write a custom validator and show how to use them
- c) Write a note and usage of Security Context and Http Authentication Mechanism in authentication users
- d) Explain the working of Json web tokens in Java EE Rest Applications and Java based Application Server
