

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech. Winter 2023 - 24 Examination**

**Semester: 5**  
**Subject Code: 203105372**  
**Subject Name: Enterprise Programming**

**Date: 30-10-2023**  
**Time: 02:00pm to 04:30pm**  
**Total Marks: 60**

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**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start a new question on the new page.

**Q.1 Objective Type Questions - ( Fill in the blanks, one-word answer, MCQ-not more than Five in case of MCQ) (All are compulsory) (Each of one mark) (15)**

- 1 The purpose of using @JoinColumn annotation in JPA is .....
  - a). To join multiple tables in the query
  - b). To specify the foreign key column in a relationship
  - c). To define the primary key column
  - d). To create the index of the column
- 2 Thin driver in JDBC is also called as .....
  - a). Type 1 Driver
  - b). Type 2 Driver
  - c). Type 3 Driver
  - d). Type 4 Driver
- 3 What is the purpose of JSP tags like <%.....%> and <%=.....%> page?
  - a). They are used for including external JavaScript files.
  - b). They define Java classes in JSP pages.
  - c). They embed Java code and expression in HTML Code.
  - d). They create a custom JSP Component.
- 4 What type of dependency injection does Spring support?
  - a). Based on the constructor and setters
  - b). Based on the constructor, setters, and getter
  - c). Based on setters, getters, and properties
  - d). Based on the constructor, setters, and properties
- 5 What are the major components of the JDBC?
  - a). DriverManager, Statement and ResultSet
  - b). DriverManager, Driver, Connection, Statement and ResultSet
  - c). DriverManager, Connection, Statement and ResultSet
  - d). DriverManager, Driver, Statement and ResultSet
- 6 The \_\_\_\_\_ method of HttpServlet class is responsible for the Http GET request.
- 7 \_\_\_\_\_ is the primary purpose of Hibernate session object.
- 8 \_\_\_\_\_ servlet API method is called before a servlet instance is destroyed.
- 9 \_\_\_\_\_ object is used to create a SessionFactory in Hibernate.
- 10 For adding dependencies in a maven project, \_\_\_\_\_ tag is used.
- 11 What is the purpose of the Spring MVC module
- 12 Write the syntax that can be used to get the value of the "form" tag parameter to the servlet.
- 13 What is an IOC container in Spring?
- 14 What is Autowire in SpringBoot?

**15** What is the purpose of HQL?

**Q.2 Answer the following questions.** (Attempt any three) **(15)**

A) Explain in brief about Dispatcher Servlet and ViewResolver.

B) What is the role of transaction management in Hibernate?

C) What is auto wiring in spring, and explain its modes?

D) Differentiate between ResultSet and PreparedStatement

**Q.3** A) Compulsory **(07)**

Write the code for implementing the registration form using Servlet, JSP and Hibernate ORM.

B) Optional **(08)**

Write the code to implement the login form using JSP and Servlet.

**OR**

B) Optional **(08)**

i) Describe the Architecture of ORM using Hibernate.

ii) Explain the Mapping annotation of Hibernate.

**Q.4** A) Optional **(07)**

i) What is dependency injection (DI)? What are the types of DI?

ii) Define and explain the Spring Application Context with suitable examples.

**OR**

A) Optional **(07)**

Write a Java program using JDBC API CRUD operation for (Ex: Id, Name & Salary)

i) Connection to DB (Oracle/MySQL etc)

ii) Create & Insert Data into DB

iii) Retrieve data from DB

iv) Update data in DB.

B) Compulsory **(08)**

Explain various session tracking each with an example in Servlet