PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
MCA/MScIT 2024-25 Even Mid-Term Examination

Semester: 2
Subject Code: 05201251/ 05202156
Subject Name: Advanced Java Programming

Date: 10/03/2025
Time: (1hr:30min)
Total Marks: 40

Instructions:
1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

[10]

Q.1 Answer the following.   [3]

(a) 3 short questions of 1 mark each

(i) What is the primary purpose of JDBC?

(ii) Why is the service() method crucial in the servlet life cycle?

(iii) What is an implicit object in JSP?   [7]

(b) Objective type/MCQs/True-False/Fill in blanks (7 questions of 1 mark each)

(i) What does JDBC stand for?
a. Java Dynamic Connection
b. Java Database Connectivity
c. Java Database Compiler
d. Java Distributed Compiler

(ii) The Statement interface in JDBC is used to execute SQL queries. True/false. Give justification.

(iii) Which of the following JDBC components is responsible for loading a database driver?
a. Driver
b. DriverManager
c. ResultSet
d. SQLException

(iv) How do you access query parameters from a GET request in a servlet?
a. request.getQueryParameter()
b. request.getParameter()
c. request.getAttribute()
d. request.getQueryString()

(v) The _____ interface must be implemented to create a servlet filter.

(vi) What does JSP stand for?
a. JavaScript Pages
b. JavaServer Pages
c. Java Servlet Pages
d. Java Scripting Pages

(vii) What does EL stand for in JSP 2.0?
a. Extended Language
b. Expression Language
c. Evaluation Language
d. Enhanced Logic

Q.2 Answer the following. (2 or 3 mark questions) [10]

(a) Two Questions of 2 Marks [4]

(i) What is the purpose of a PreparedStatement in JDBC? (02)

(ii) List the primary components of a filter lifecycle. (02)

(b) Two Questions of 3 Marks [6]

(i) What is a cookie, and how to add cookies explain with an example. (03)

(ii) Explain the usage of the c:choose tag in JSTL. (03)

Q.3 Attempt any TWO. [10]

(i) Describe how to establish a JDBC connection to a database. What are the key steps involved? (05)

(ii) Compare the doGet() and doPost() methods in the servlet life cycle. When should each be used? (05)

(iii) Evaluate the use of the scriptlet tag (<% %>) for embedding Java code in JSP. What are the pros and cons? (05)

Q.4 Answer the following. [10]

(a) Answer the following.
Evaluate the benefits of using the <jsp:getProperty> tag for accessing JavaBean data instead of writing scriptlets. (05)

(b) Answer the following.
Create a basic servlet using the HttpServlet class that responds with "Hello, World!" to client requests. (05)

OR

(b) Answer the following.
Create a JSP page that uses the c:out tag to display a user's name stored in a variable. (05)