

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016

Subject Code: 2160707

Date: 09/05/2016

Subject Name: Advanced Java

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.

- Q.1** (a) Answer the following questions: **07**
- (I) How does the JVM execute a servlet compared with a regular Java class?
 - (II) Consider a scenario in which 4 users are accessing a servlet instance. Among which one user called destroy() method. What happens to the rest 3 users?
 - (III) What is Connection Pooling?
 - (IV) Can one JSP or Servlet extend another Servlet or JSP? Justify your answer.
 - (V) What happens if you add a main method to servlet?
 - (VI) What is phantom read in JDBC? Which isolation level prevents it?
 - (VII) Servlet is Java class. Then why there is no constructor in Servlet? Can we write the constructor in Servlet? Justify your answer.
- (b) What is JDBC? List out all various types of JDBC Driver. Explain Thick and Thin driver. Write code snippet for each type of JDBC connection. Comment on selection of driver. **07**
- Q.2** (a) Show the use of PreparedStatement object to run precompiled SQL statement. Also write example of java snippet for PreparedStatement. **07**
- (b) Write a TCP or UDP client and server program to do the following: **07**
- ```
client> java client localhost/IP Port <enter>
Enter text: Welcome to Gujarat Technological UNIVERSITY <enter>
Response from server: ytisrevinu LACIGOLONHCEt TARAJUG TO
EMOCLEw
client> exit
```
- OR**
- (b) Write a client-server program using TCP or UDP where the client sends 10 numbers and server responds with the numbers in sorted order. **07**
- Q.3** (a) Explain the Hibernate cache architecture. **07**
- (b) Write small web application which takes marks of three subject and pass to servlet. Servlet forward to model class having method getClass() and getPercentage(). Display class and percentage in .jsp page. **07**
- OR**
- Q.3** (a) Differentiate the followings: (Any Three) **07**
- (I) GenericServlet vs HttpServlet
  - (II) doGet() vs doPost()
  - (III) Servlets vs CGI
  - (IV) Session and Cookie
  - (V) JSP vs Servlet
- (b) Write a student bean class with property student\_name, enrollment\_no, address and cpi. Write jsp page to set and display all property. **07**
- Q.4** (a) List and Explain various stages of JSP life cycle. Briefly give the function of **07**

- each phase.
- (b)** Write servlet which displayed following information of client. **07**
- I. Client Browser
  - II. Client IP address
  - III. Client Port No
  - IV. Server Port No
  - V. Local Port No
  - VI. Method used by client for form submission
  - VII. Query String name and values
- OR**
- Q.4 (a)** List and Explain various stages of Servlet life cycle. Explain role of web container. **07**
- (b)** Write line(s) of code in JSP for following. **07**
- I. Session read and write
  - II. URL rewriting sending and retrieving parameter(s)
  - III. URL redirection
  - IV. Print “hello world” as output
  - V. Include the other JSP file statically
  - VI. Expression to display date as output
  - VII. Method of setting the JSP parameters to use in JSTL
- Q.5 (a)** Draw the JSF request processing life cycle and briefly give the function of each phase. **07**
- (b)** What is HQL? How does it different from SQL? List its advantages. **07**
- OR**
- Q.5 (a)** What is Spring Web MVC framework? List its key features. **07**
- (b)** What is OR mapping? Give an example of Hibernate XML mapping file. **07**

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