

# **TCS-603/TIT-603**

## **B. TECH. (CS/IT) (SIXTH SEMESTER) END SEMESTER EXAMINATION, 2019**

### **ADVANCED JAVA PROGRAMMING**

**Time : Three Hours**

**Maximum Marks : 100**

**Note :** (i) This question paper contains five questions with alternative choice.

(ii) All questions are compulsory.

(iii) Instructions on how to attempt a question are mentioned against it.

(iv) Total marks assigned to each question are **twenty**.

1. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)

(a) Explain the following :

(i) Socket

(ii) Reserved Socket

(iii) TCP

(iv) UDP

(v) Inet Address class

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- (b) (i) Write a program to print the hostname and the host address of client. 5
- (ii) Discuss some important classes used in net package in java. 5
- (c) Write a program to establish client server communication using UDP. Client sends a number to the server and server returns the factorial of that number. This conversation will not stop until client or server send a "bye" message.
2. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain various types of JDBC drivers in java with their diagram, advantage and disadvantage of each.
- (b) Explain ResultSet Type, Concurrency and Holdability in detail. Also discuss some navigation methods with examples.
- (c) Program in JDBC to insert the marks of five subject of a student into the database by taking the marks from the user. Now print the percentage after reading the marks from the database.

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3. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain at least five implicit JSP objects with their use.
- (b) (i) Define a java bean. Create a student bean having Roll. No. and Name fields.
- (ii) Describe the architecture of JSP processing. "Processing of JSP pages are some how slow than servlets". Comment on the statements with reasons.
- (c) Make a Login page with username and password fields and a submit button. Validate the login details by using JSP page. If client GEHU as a username and 12345 as a password then print the message Welcome GEHU.
4. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) What are Servlets and explain lifecycle of a Servlet ? How many ways we can make our own servlet ? Differentiate between them.
- (b) Explain Inter Servlet Communication. Write a program to make a login page,

check the validation of a client inside servlet1 and if validation successful then print WelcomeUser through servlet2 and if validation fails then include print Invalid UsernameorPassword along with the login page.

- (c) (i) Differentiate between JSP and servlet.
- (ii) Differentiate between send Redirect( ) and forward( ).

5. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)

- (a) What is EJB and explain different types of EJB ? Write a program for stateful session beans.
- (b) Create a sample struts application. Explain some important tags/elements in struts.xml.
- (c) What is a Struts Framework ? Explain MVC architecture in it. Also explain the use of filter dispatcher.