JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-3 EXAMINATION-2024

B. Tech-V Semester (IT)

COURSE CODE (CREDITS): 18B11CI511 (3)　　　　　　MAX. MARKS: 35

COURSE NAME: Advanced Java

COURSE INSTRUCTORS:　Dr. Amol Vasudeva　　　　　　MAX. TIME: 2 Hours

Note: *(a) All questions are compulsory.*
　　　　(b) The candidate is allowed to make suitable assumptions wherever required
　　　　for solving problems

Q No	Question	CO	Marks
Q1	Write a calculator application. Use a grid layout to arrange buttons for the digits and for the + - × ÷ operations. Add a text filed to display the result.	CO-1	5
Q2	You are given a table called Emp(empid varchar2(10) primary key, ename varchar2(20), age integer, salary double). Define a PL/SQL function to returns the details of all the employees with age greater than 40. Now, use the CallableStatement to call this function in a JSP or Servlet and display the result on the client's browser.	CO-2, CO-3	6
Q3	Write an RMI application where the user running an application on the client's JVM invokes a remote method String getMessage(String), running on the server's JVM.	CO-5	5
Q4	What is the process of Marshalling and Unmarshalling in RMI?	CO-5	3
Q5	Write a Java socket program (TCP/IP based) that allows the communication (chatting) between client and server until 'stop' is entered by the client.	CO-4	5
Q6	Write an enterprise based web application to find the factorial of a given number. A positive integer values is passed through an html form to invoke a servlet called Servlet1. The Servlet1 calls the method int fact(int) that has been defined inside a stateless session bean Fact.	CO-6	7
Q7	Differentiate between the following terms within 2-6 sentences. a) Java Bean and Enterprise Java Bean b) Stateful and Stateless Session Beans	CO-6	4