

**Tribhuvan University**  
**Institute of Science and Technology**

**2071**

Bachelor Level/ Fourth Year/ Seven Semester/ Science  
Computer Science and Information Technology (CSc. 403)  
(Advanced Java Programming)  
(NEW COURSE)

Full Marks: 60  
Pass Marks: 24  
Time: 3 hours

*Candidates are required to give their answers in their own words as far as practicable.  
The figures in the margin indicate full marks.*

**Section A**

**Attempt any Two questions. (2x10=20)**

1. What is multithreading? Why is it important to develop computer programs? Discuss life cycle of thread in detail.
2. Write a program using swing components to find simple interest. Use text fields for inputs and output. Your program should display the result when the user presses a button.
3. What is servlet? Differentiate it with JSP. Discuss life cycle of servlet in detail.

**Section B**

**Attempt any Eight questions. (8x5=40)**

4. How do you achieve multiple inheritance in java? Discuss.
5. What is JDBC? Discuss different driver types of JDBC.
6. Explain the importance of exception handling with suitable example.
7. Discuss group layout with suitable example.
8. Write a simple java program to read from and write to files.
9. What is TCP socket? Differentiate it with UDP socket.
10. Discuss any five event classes in java.
11. What is java beans? Differentiate it with java classes.
12. What is RMI? Differentiate it with CORBA?
13. Write a simple JSP program to display "Tribhuvan University" 10 times.

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