# Tribhuvan University Institute of Science and Technology

#### 2069

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.

1. What are exceptions? Why is it important to handle exceptions? Discuss different keywords that are

used to handle exception. (2+2+6)

2. Write a program using swing components to add two numbers. Use text fields for inputs and output.

Your program should display the result when the user presses a button. (10)

3. What is java beans? Differentiate it with java class. Discuss bean writing process with suitable examples. (2+2+6)

# Section B

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

- 4. Discuss the use of interfaces to achieve multiple inheritance. (5)
- 5. Discuss the use of multithreading with suitable example. (5)
- 6. What is JDBC? How do you execute SQL statements in JDBC? (2+3)
- 7. Discuss grid layout with suitable example. (5)
- 8. Discuss any five classes to handle files in java. (5)
- 9. What is JSP? Differentiate it with servlet. (2+3)
- 10. What is UDP socket? Differentiate it with TCP socket. (2+3)
- 11. How can you handle events using adapter classes? Discuss. (5)
- 12. What is RMI? Discuss architecture of RMI in detail. (1+4)
- 13. Write a simple JSP program to display "Kathmandu, Nepal" 10 times.