

Tribhuvan University
Institute of Science and Technology

2077



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

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.

Group A

Attempt any two questions.

(2x10=20)

1. What is the significance of stub and skeleton in RMI? Create a RMI application such that a client sends an integer number to the server and the server return the factorial value of that integer. Give a clear specification for every step. [10]
2. You are hired by a reputed software company which is going to design an application for "Movie Rental System". Your responsibility is to design a schema named MRS and create a table named Movie(id, Title, Genre, Language, Length). Write a program to design a GUI form to take input for this table and insert the data into table after clicking the OK button. [10]
3. Describe the responsibility of Serializable interface. Write a program to read an input string from the user and write the vowels of that string in VOWEL.TXT and consonants in CONSONANT.TXT. [2 + 8]

Group B

Attempt any eight questions.

[8 × 5 = 40]

4. A non-empty array A of length n is called an array of all possibilities if it contains all numbers between 0 and A.length-1 inclusive. Write a method named *isAllPossibilities* that accepts an integer array and returns 1 if the array is an array of all possibilities, otherwise it returns 0. [5]
5. Define event delegation model. Why do we need adapter class in event handling? [2 + 3]
6. What is the task of Layout manager? Describe about default layout manager. [1 + 4]
7. When does the finally block is mandatory in while handling exception? Describe with a suitable scenario. [5]
8. Explain the life cycle of a servlet. [5]
9. What is the task of manifest file? Write the procedure to create it. [2 + 3]
10. Why multiple inheritance is not allowed in Java using classes? Give an example. [5]
11. How forms can be created and processed using JSP? Make it clear with your own assumptions. [5]