

Tribhuvan University
Institute of Science and Technology
 2082
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Bachelor Level / Fourth Year / Seventh Semester / Science
Computer Science and Information Technology (CSC409)
 (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.

[2 × 10 = 20]

1. What are the uses of focus and item event? Write a socket program using UDP to create three programs, two of which are clients to a single server. Client1 will send a character to the server process. The server will circularly decrement the letter to the previous letter in the alphabet and send the result to Client2. Then Client2 prints the letter it receives and then all the processes terminate. [3 + 7]
2. Write a JavaFX application that creates a ChoiceBox with a list of colors. Display a label that changes its text based on the selected color from the ChoiceBox. Write down steps for writing CORBA programs with suitable example. [5 + 5]
3. Discuss about JSP implicit objects. Assume a database with the table TEACHER (ID, Name). Now using JDBC, execute the following SQL query. [3 + 7]
 - a. select * from TEACHER;
 - b. insert into TEACHER values (8, 'Ramesh');
 - c. select name from TEACHER where ID = 9;

Section B

Attempt any EIGHT Questions.

[8 × 5 = 40]

4. Write a program to insert an icon in the frame and when the user press up arrow, it will move upward. [5]
5. How do you handle HTTP request and response using JSP? Illustrate with an example. [5]
6. Describe the life cycle of servlet. [5]
7. Write a program to input the name of faculty and throw an exception if that input is not "CSIT". [5]
8. Write a program to design a layout of simple calculator. You do not need to show the arithmetic operation. [5]
9. What is package? Differentiate between method overloading and overriding. [1 + 4]
10. Write a program to demonstrate the concept of internal frame. [5]
11. Write a program to create a class MOVIE with attribute name and genre. Write the movies with genre comedy on COM.DAT file. [5]
12. Do we still need java applet? Justify. Give the hierarchy of swing class. [2.5 + 2.5]