

Tribhuvan University
Institute of Science and Technology

2077



Bachelor Level / First Year/ First Semester/ Science
Computer Science and Information Technology (CSc. 110)
(C 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 do you mean by looping? Explain while loop with suitable example. Compare while loop with do-while loop. Write a program to find sum and average of first n natural numbers. (1+3+2+4)
2. What are the benefits of using arrays? Compare one dimensional array with two dimensional array. Write a program to find transpose of a matrix. (2 +2+6)
3. What is structure? How is it different from union? Create a structure named **course** with **name**, **code**, and **credit_hour** as its members. Write a program using this structure to read data of 5 courses and display data of those courses with credit_hour greater than 3. (1+2+7)

Section B

Attempt any eight questions: (8×5=40)

4. Explain flowchart with example. What are the benefits of using flowcharts? (3 + 2)
5. What is data type? Why do we need it in programming? Explain any three basic data types with example. (1 + 1 + 3)
6. What do you mean by unformatted I/O? Explain. (5)
7. Write a program to display first n prime numbers. (5)
8. Write a program to find product of two integers using your own function. (5)
9. Define pointer. How to you return pointers from functions? Explain with example. (1 + 4)
10. Explain different file I/O functions with example. (5)
11. Write a program to draw a circle using graphics function. (5)
12. Write short notes on: (2 × 2.5 = 5)
 - a. Compilation and execution
 - b. Operator precedence and associativity