

C programming (CSC110)

Section-A

Long Answer Questions

Attempt any 2 questions. [2 x 10=20]

1. Define function and list its advantages. Describe the difference between passing arguments by value and passing arguments by address with suitable examples. [4+6]
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 member. Write a program using this structure to read data of 3 courses and display only the courses having credit_hour greater than 3.

Section B

Attempt any eight questions:[8x5=40]

4. Differentiate between algorithm and flowchart. Explain the Compilation and Execution of any C program? [2+3]
5. Define pointer. How do you return pointers from functions? Explain with examples. [1+4]
6. Define any five string library functions. [5]
7. What is dynamic memory allocation? Discuss the use of malloc() in dynamic memory allocation with examples. [2+3]
8. Write a program to read and print data stored in a file “**demo.txt**”. [5]
9. Write a program to check whether a number is palindrome or not. A number is taken as user input. [5]
10. Write a program to add two 3x3 matrices. [5]
11. What is recursion? Write a program to find the factorial of given number using recursion.[1+4]

12. Differentiate between the bounded and unbounded loop with suitable examples.
[5]