Tribhuvan University

Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2018

Bachelor in Computer Applications   **Full Marks: 60**
Course Title: C-Programming   **Pass Marks: 24**
Code No: CACS 151   **Time: 3 hours**
Semester: II

Centre: **Symbol No:**

Candidates are required to answer the questions in their own words as far as possible.

Group A

Attempt all the questions.   **[10×1 = 10]**

Circle (O) the correct answer.

1. Which of the following doesn't require an & for the input in scanf()?
    a. char name[10];   b) int name[10];
    c) float name[10];   d) double name[10];

2. What is the memory size of float data type in C?

    a) 4 Bytes   b) 8 Bytes

    c) Depends on the system/complier   d) Cannot be determined.

3. What will be the output of the following C code?
    ```
    #include<stdio.h>
    int main()
    {
            int x = 3,y;
            y = (++x) + (x++);
            printf("%d",y);
            return 0;
    }
    ```
    a) 6   b) 8   c) 7   d) 9

4. Which keyword is used to come out of a loop only for that iteration?
    a) break   b) continue   c) return   d) void

5. Bitwise operators can operate upon?
    a) Double and chars   b) floats and doubles
    c) int and floats   d) int and chars

6. In C, if you pass an array as an argument to a function, what actually gets passed?
    a) Value of elements in an array.   b) First element in an array.

    c) The address of first element in an array.   d) The address of last element in an array.

7. Which operator is used to access the members of structure using structure variable?
    a) Address operator (&)   b) Dot operator (.)
    c) Pointer operator (*)   d) Arrow operator (→)

8. Which function is used to record input from file?
    a) ftell()   b) fwrite()   c) fprintf()   d) fread()

9. Which of the following is a keyword used for a storage class?

a) printf   b) goto   c) external   d) break

10.   What will be the size of following union declaration?
       union test
       {
               int x;
               char y;
               float z;
       }
       a) 8 bytes   b) 13 bytes   c) 1 byte   d) 4 bytes

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Group B

Attempt any SIX questions.   **[6×5 = 30]**

11. What is software process model? Differentiate between cohesion and coupling in programming. [1+4]
12. Define keyword and identifiers. Explain rules for defining valid identifiers. [2+3]
13. List the operators used in C on the basis of utility. Explain the concept of bitwise operator. [2+3]
14. Differentiate between while loop and do while loop. Write a C program to find input number is prime or composite. [2+3]
15. What is DMA? Write a program to find the largest and smallest number in a list of N number using DMA. 1+4]
16. What is difference between binary file and text file? Write a C program to write some text "Welcome to BCA program" in a file test.text. [2+3]
17. Explain any four graphics functions in C. Write a program to draw two concentric circles with center (50, 50) and radii 75 and 125. [2+3]

Group-C

Attempt any two questions   **[2x10=20]**

18. What is one dimensional array? How it is initialized? Write a C program to find the sum of two matrix of order m×n. [1+1+8]
19. Define structure and union? Write a C program using structure that reads the records of 35 students with members roll, name, address and makes and display the record of students who have obtained greater than 250 marks. [2+8]
20. What is function? List its advantages. Explain the concept of function call by value and function call by reference with example. [1+2+7]