

M. Sc. MATHEMATICS
SECOND SEMESTER
COMPUTER PROGRAMMING WITH C
MSM - 205

(Use Separate Answer Scripts for Objective & Descriptive)

Duration : 2 hrs.

Full Marks : 50

(PART-A : Objective)

Time : 20min.

Marks : 10

Choose the correct answer from the following:

1×10=10

1. Which of the following special symbol allowed in a variable name?
 - a. *(asterisk)
 - b. | (pipeline)
 - c. - (hyphen)
 - d. _ (underscore)

2. When we mention the prototype of a function?
 - a. Declaration
 - b. Function calling
 - c. Definition
 - d. All of these

3. We want to round off x, afloat, to an int value, then correct way to do is
 - a. (int)(x+0.5)
 - b. Int (x+0.5)
 - c. (int) x+0.5
 - d. (int)((int)x+0.5)

4. Which of the following is not a logical operator?
 - a. &
 - b. &&
 - c. ||
 - d. !

5. Which of the following is the not a correct variable type in C?
 - a. Float
 - b. Real
 - c. Int
 - d. Double

6. Which of the following are unary operator in C language
 1. !
 2. Sizeof
 3. ~
 4. &&
 - a. 1,2
 - b. 1,3
 - c. 2,4
 - d. 1,2,3

7. Which of the following declares a pointer variable (ptr) and initializes it to the address of x?

- a. int *ptr = *x
- b. int *ptr = &x
- c. int &ptr = *x
- d. int &ptr = &x

8. The size of a union is

- a. The sum of the sizes of the union's members
- b. The size of the largest member of the union
- c. Is determined at runtime
- d. Depends on which member of the union is used

9. The main difference between a structure and a union is:

- a. The syntax used to define them
- b. The syntax used to access their members
- c. Structure members have separate memory, union members share memory
- d. Structure and Union are really different names for the same thing

10. The expression **sizeof(int)** refers to

- a. The largest number that can be stored in an int variable
- b. The number of int variables declared in the current function
- c. The number of bytes needed to store an int variable
- d. The largest number of characters allowed in the name of an int variable

(PART-B : Descriptive)

Time : 1 hrs. 40 min.

Marks : 40

[Answer question no.1 & any four (3) from the rest]

1. What is operator. Describe all categories of operators used in C with example. 10
2. What is looping in C? Describe different types of looping in C with example. Differentiate the entry controlled and exit controlled loop. 2+6+2 =10
3. Write a program to display multiplication of two matrices (2-D array) 10
4. What is argument? Write a C program to calculate value of ${}^n C_r$ using function. 2+8 =10
5. Define structure with example? How does a structure differ from array? Describe functions related to basic operations of file. 4+2+4 =10
6. a. Draw flow chart to display multiple of 19 between 100 & 200. 5+5 =10
b. Write a program to swap two real nos.