

MCA-03/PGDCA-03/M.Sc.IT-03
Computer Programming Using C

Master of Computer Application/P.G.Diploma in Computer Applications/Master of Science in Information Technology
(MCA/PGDCA/M.Sc.IT-11/12/16/17)
First Semester Examination 2019

Time : 3 Hours

Max. Marks 80

Note : This paper is of Eighty (80) marks divided into three(03) sections A, B & C. Attempt the questions contained in these sections according to the detailed instruction given therein.

Section –A

(Long - Answer - Type question)

Note : Section 'A' contains four (04) long-answer-type question of Nineteen (19) marks each.learners are required to answer any two(02) question only. **(2x19=38)**

1. Answer the following:

- (a) What is Structure ? Write a program in C to create a structure called student having name, roll no. and percentage and print the name of student having percentage 80% out of 5 students?
- (b) What is two-dimensional array? Write a program in C Language for 2*2 matrix multiplication.

2. Answer the following:

- (a) What do you mean by the steams? Distinguish between text mode & binary mode operation of a file. Write a program to copy the contents of one file to another file.

(b) What is the difference between an array and a string? Write a program for concatenation and comparing of two strings input by keyboard.

3. Answer the following:

(a) What do you mean by dynamic memory allocation? Write down the syntax for malloc() & calloc() function?

(b) Explain the general format the fseek() function? Also explain the difference between fread and fwrite? Explain above by giving example?

4. Answer the following:

(a) What is the use of file in `C` Language? Write a function input and output data in/from a file also write a function to copy the content of one file to another file?

(b) Write a loop that will calculate the sum of every third integer, beginning with i=2(i.e., calculate the sum 2+5+8+11+.....) for all values of I that are less than 100. Write the loop in three different ways:

i) Using a while statement

ii) Using a do while statement

iii) Using a for statement

Section – B

(Short Answer Type Question)

Note : Section 'B' contains eight(08) short answer type questions of Eight (08) marks each. Learners are required to Answer any four (04) Questions only. (4x8=32)

1. Write and explain conditional statement used in C program?
2. Write a C program for generating the Fibonacci sequence up to 20?
3. What is function? Explain with suitable example.
4. Write a program in C to check the minimum of three numbers, taking three numbers as input with the help of a function.

5. Write a C program to swap two number by using call by value and call by reference?
6. How many types of memory are normally there in the storage unit of a computer system ? justify the need for storage type?
7. What are iteration statements in C program? Give their example.
8. Write a C program to find out that a particular number is Palindrome number or not?

Section –C **(Objective Type Question)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are Compulsory.

Q1. Static and Registers are:

- | | |
|---------------------|------------------------|
| (i) pointers | (ii) array |
| (iii) storage class | (iv) none of the above |

Q2. Int data type of C language takes how many bytes:

- | | |
|---------|--------|
| (i) 2 | (ii) 3 |
| (iii) 1 | (iv) 4 |

Q3. How long does this loop run: For (int x=0; =4;x++)

- | | |
|---------------|------------------------|
| (i) Never | (ii) Four times |
| (iii) Forever | (iv) None of the above |

Q4. Size of float is :

- | | |
|-----------------|----------------|
| (i)One byte | (ii) Two byte |
| (iii)Three byte | (iv) Four byte |

Q5. +,-,/,* are :

- (i) Logical operators
- (ii) Bitwise operator
- (iii) Arithmetic operator
- (iv) Relational operator

Q6. Which one is an example of derived data type:

- (i) Structure
- (ii) Union
- (iii) Enumerated
- (iv) All of these

Q7. C is a/an :

- (i) Assembly level language
- (ii) Procedure-Oriented language
- (iii) Machine level language
- (iv) None of these

Q8. In a C language, pointer is:

- (i) Address of a variable
- (ii) A variable for storing address
- (iii) Constant operator
- (iv) None of these

Q9. Pointer is used for:

- (i) Dynamic memory allocation
- (ii) Preprocessor directive
- (iii) Macros
- (iv) None of the above

Q10. $y=++x$, where $++$ is a:

- (i) Pre-increment operator
- (ii) binary operator
- (iii) Ternary operator
- (iv) Assignment operator
