

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER - 2023**

PROGRAMMING IN C

[Maximum marks: 75]

[Time: 3 Hours]

PART A

I. Answer all the following questions in one word or one sentence. Each question carries 1 mark

(9 x 1 = 9 Marks)

		Module outcome	Cognitive level
1	Which is the default storage class for a variable declared inside a function?	M1.05	R
2	The process of calling a function itself is called.....	M1.07	R
3	Which statement is used to return a value to the calling function?	M1.03	R
4	The library function used to find the length of a string is	M2.06	R
5	Write a C statement to initialize an array with values 3,7,2,4,1	M2.01	U
6function used to dynamically de-allocate a memory	M3.03	R
7	Write the syntax of declaring a pointer variable.	M3.01	R
8	Name the function used to read a character from a file.	M4.07	R
9	What is argc in command line argument?	M4.08	R

PART B

II. Answer any eight questions from the following. Each question carries 3 marks.

(8 x 3 = 24 Marks)

		Module outcome	Cognitive level
1	What are the advantages of modular programming?	M1.03	R
2	Write a short note on any two preprocessor directives.	M1.02	R
3	What is the value of 'a' after executing the given code. <pre>#include<stdio.h> static int a; int main() { printf("%d",a); return 0; }</pre>	M1.05	U
4	What is a function? Write the difference between function declaration and function definition.	M1.03	U

5	Illustrate the steps to solve problems using divide and conquer method.	M2.03	U
6	Illustrate the method of passing pointers to a function with an example.	M3.04	U
7	Define pointer. What are the advantages of pointers in C?	M3.01	R
8	Write the output of the following code. <pre>#include<stdio.h> int main(){ int a[5]={1,2,3,4,5}; int *p; p=a; for(int i=0;i<5;i++) { printf("\n%x",*p); p++; } return 0; }</pre>	M3.04	U
9	Write a short note on array of pointers.	M3.04	R
10	List and write the use of any three file handling functions in C.	M4.07	R

PART C

Answer all questions. Each question carries seven marks

(6 x 7 = 42 Marks)

			Module outcome	Cognitive level
III	(a) Explain formal parameter and actual parameter (3 Marks)		M1.03	R
	(b) Explain the scope and visibility of extern and auto storage classes in C. (4 Marks)		M1.04	U
OR				
IV	Write a user defined function to find the reverse of a number. Using this function write a C Program to find the reverse of a number.		M1.08	A
V	(a) Differentiate between one dimensional and two dimensional arrays. (3 Marks)		M2.01	U
	(b) Write a C program to find the transpose of a given matrix. (4 Marks)		M2.02	A
OR				
VI	Write a C program to implement binary search algorithm.		M2.04	U
VII	Explain any four string manipulation functions with example.		M2.06	R
OR				
VIII	Write a C program to check whether given string is palindrome or not.		M2.06	A

IX	(a) Explain any two pointer arithmetic operations with example. (3Marks) (b) Compare malloc() and calloc(). (4 Marks)	M3.01 M3.03	U U
	OR		
X	Write a C Program to find the sum of two matrices using pointers (7 Marks)	M3.03	A
XI	Define a structure cricket with information such as player name, team name and batting average. Using this structure write a C program to read and display the details of 10 players.	M4.02	U
	OR		
XII	Write a short note on the following (a) Passing structure as arguments to a function. (4 Marks) (b) Union data type definition and declaration. (3 Marks)	M4.04 M4.03	U R
XIII	(a) Write a C program to count the number of characters in the file. (4Marks) (b) Write the use of feof() and ferror() functions. (3 Marks)	M4.07 M4.07	A U
	OR		
XIV	Illustrate command line argument with example.	M4.08	U
