SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

MCA – I Year (I Sem)	
Course Name: Programming in C	**Code: MCS1008**
Time: 02 Hours	**Max Marks: 60**

University Roll No.															
(To be filled by the Student)															

Note: Please read instructions carefully:

a) *The question paper has 03 sections and it is compulsory to attempt all sections.*

b) *All questions of Section A are compulsory; questions in Section B and C contain choice.*

Section A: Very Short Answer type Questions **Attempt all the questions.**		**BL**	**CLO**	**Marks (10)**
1.	Contrast between compiler and interpreter.	BL2	CLO2	02
2.	Describe the function prototype with example.	BL2	CLO2	02
3.	Illustrate the use of conditional compilation.	BL2	CLO2	02
4.	Explain the working of pointer arithmetic.	BL2	CLO2	02
5.	Describe the circularly linked list.	BL2	CLO2	02
Section B: Short Answer Type Questions **Attempt any 03 out of 06 questions.**		**BL**	**CLO**	**Marks (30)**
1.	Discuss arithmetic, relational and logical operators in C with suitable examples.	BL2	CLO2	10
2.	Draw flowcharts for the following : i. Sum of digits of a number ii. Reverse of given number	BL2	CLO1	10
3.	Illustrate the following terms with example i. Structure ii. Dynamic Memory Allocation	BL2	CLO2	10
4.	Construct a program to copy the contents of one text file into another.	BL3	CLO5	10
5.	Analyze the following code and predict the output.	BL4	CLO4	10

	i.
	`int main()`
	`{`
	`if(-5)`
	`{`
	`printf("Germany\n");`
	`}`
	`if(5)`
	`{`
	`printf("Texas\n");`
	`}`
	`printf("ZING");`
	`return 0;`
	`}`
	ii.
	`int main()`
	`{`
	`int a=25;`
	`while(a <= 27)`
	`{`
	`printf("%d ", a);`
	`a++;`
	`}`
	`return 0;`
	`}`			

6.	Discuss four functions for string handling with suitable examples.	BL2	CLO2	04
Section C: Long Answer Type Questions/Case Study **Attempt any 01 out of 04 questions.**		**BL**	**CLO**	**Marks (20)**
1.	Construct a menu driven program to perform the following operation: iii. Find Factorial of a given number iv. Generate Fibonacci series upto 10 terms. v. Find prime numbers between 20 to 50.	BL3	CLO2	20
2.	Examine the working of the various types of searching technique in C with suitable C program example separately.	BL4	CLO3	20
3.	Define a structure of student to store the name, an array marks[] which store marks of five different subjects, and a grade. Construct a program using an array of student structure with the following operations: i. Add student details ii. Modify student details iii. Search student iv. View all students	BL3	CLO2	20
4.	Construct a C program of linked list with array implementation with the following operations: i. Insertion	BL3	CLO2	20

	ii. Deletion iii. Traversal iv. Search			
