

SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

**B.Tech (CE/ME/BT/EC/EE)- I Year (I Sem)/
IBM(Cloud Computing)/(Data Science) I Year (I Sem)/
Integrated B.Tech M.Tech (BT) I Year (I Sem)**

Course Name: Programming for Problem Solving

Code: BCS1701

Time: 02 Hours

Max Marks: 60

University Roll No.

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(To be filled by the student)

Note: Please read instructions carefully:

- The question paper has 03 sections and it is compulsory to attempt all sections.
- 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.	Explain the different types of networks.	BL2	CLO1	02
2.	Translate $(F1E2)_{16}$ into $(?)_2$	BL2	CLO1	02
3.	What are the Characteristics of Computer?	BL1	CLO1	02
4.	Outline the different operators in C.	BL2	CLO2	02
5.	Discuss the different types of loops in C with syntax.	BL2	CLO1	02
Section B: Short Answer Type Questions Attempt any 03 out of 06 questions.		BL	CLO	Marks (30)
1.	Illustrate output devices? Explain any two output devices in detail.	BL4	CLO1	10
2.	Classify conditional statements with the help of syntax and example.	BL3	CLO2	10
3.	Develop a C program to check whether a given number is even or odd.	BL3	CLO3	10
4.	Outline the structure of a C program.	BL4	CLO3	10
5.	Examine pointer? Develop a program using the concept of pointer.	BL3	CLO2	10
6.	Make use of Flowchart and algorithm to find whether a given year is a leap year or not.	BL3	CLO3	10
Section C: Long Answer Type Questions/Case Study Attempt any 01 out of 04 questions.		BL	CLO	Marks (20)
1.	Design a C program and draw a flowchart to sort n elements using bubble sort.	BL6	CLO4	20
2.	Summarize Recursion. Develop a C program using recursive functions to generate the Fibonacci series.	BL5	CLO3	20
3.	Discuss Linear search and develop a C program along with flowchart to perform linear search	BL6	CLO3	20

4.	Elaborate Structure with syntax and example. Develop a C program to maintain a record of n students using structures with four fields (Roll No, Marks, Name and Grade). Print the names of the students with marks ≥ 70 .	BL6	CLO2	20
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