BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: BTECH/IMSc. **SEMESTER: II**
BRANCH: CSE/IT/EEE/ECE/PHYSICS/MATHS **SESSION: SP/19**

SUBJECT: CS101 PROGRAMMING FOR PROBLEM SOLVING

TIME: 3 Hours **FULL MARKS: 50**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	Describe how float and double data type values are stored in computer memory. Explain with examples.	[5]
Q.1(b)	Draw a flow chart to generate all numbers which are divisible by 3 but not divisible by 7.	[5]
Q.2(a)	Write a short note on iterative statements that C language supports.	[5]
Q.2(b)	Write a C Program to enter a decimal number and display the binary equivalent of this number.	[5]
Q.3(a)	Write the necessity of arrays in one dimension and multidimension with examples for C language.	[5]
Q.3(b)	Write a C program to count the total number of non-zero elements in a two-dimension array of any order for any user input data elements.	[5]
Q.4(a)	Describe scope of variables for C language. Explain with an example.	[5]
Q.4(b)	Write a C program to sort the array of n numbers in ascending order through a user defined function. The input will be entered by user.	[5]
Q.5(a)	List the advantages and disadvantages of pointers in C language. Explain with examples.	[5]
Q.5(b)	Write a C Program to calculate factorial of a number using recursion.	[5]

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