CLASS:	B.TECH/IMSC	SEMESTER : I
BRANCH:	BT/ME/PE/CE/CE&PP/CIVIL/FT	SESSION : MO/19

SUBJECT: CS101 PROGRAMMING FOR PROBLEM SOLVING

TIME:3:00 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)   What is the difference between an algorithm and a method? Also discuss the difference among   [5]
         compiler, interpreter and assembler?
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)   Explain all types of operator available in C with an example?   [5]
Q.2(b)   What is the difference between while and do-while loop? Write a C Program to find sum of first and   [5]
         last digit of a number?

Q.3(a)   What is the difference between array and variable? Write a program to find the second largest   [5]
         element of array elements?
Q.3(b)   Write a C Program to convert characters of string to upper case.   [5]

Q.4(a)   Compare and contrast Call by Value and Call by reference with suitable examples?   [5]
Q.4(b)   Write a C program to perform matrix multiplication taking array as a function parameter.   [5]

Q.5(a)   (i) Discuss various valid arithmetic operations that can be performed on pointers in C with example.   [3]
         (ii) What is the use of type def in C? Give your definition with a suitable example.   [2]
Q.5(b)   (i) Explain the following functions: (i) getw() (ii) fseek() (iii) getc() (iv) feof()   [2]
         (ii) Write a C program to display the values and address of the elements in the array using pointer.   [3]

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