

Roll No.

Subject Code—9470

M. C. A. (First Year) EXAMINATION

(5 Years Integrated Course)

MCA-102

COMPUTER PROGRAMMING AND PROBLEM

SOLVING USING C

June 2008

Time : 3 Hours

Maximum Marks : 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. Draw a flowchart and write the algorithm for generating and printing of terms of Fibonacci sequence upto a specific limit
2. Explain the following with examples :
 - (a) Constants
 - (b) Variables
 - (c) Symbolic Constants
 - (d) Keywords
 - (e) Typedef.

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3. What do you mean by data types ? Explain various data types available in C with examples.
4. (a) What do you mean by pre-processor directives ? Why do we include header files in C language ?
(b) Discuss the concept of precedence of operators in C language with examples.
5. Illustrate the purpose and syntax of various decision-making constructs in C language.
6. What do you mean by an array ? Explain the concept of reading and writing of elements of a two-dimensional array row-wise and column-wise. Also write a program to sort a given sequence of numbers in ascending order using bubble sort method.
7. (a) Differentiate between declaration and definition of a function. Correlate this with reference to `stdio.h`.
(b) What are advantages and disadvantages of using macros as compared to functions in C ?

$$9470 = \frac{2}{3}$$