

JUN 2006

Subject Code—4265

**M.C.A. (First Year) EXAMINATION**

(5 Years Integrated Course)

June, 2006

MCA-102

COMPUTER PROGRAMMING AND PROBLEM  
SOLVING USING 'C'

*Time : 3 Hours*

*Maximum Marks : 100*

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

1. Differentiate between an algorithm and a flow chart ? Draw a flow chart to find the average of N numbers.
2. Explain the various characteristics of a good program. Also explain all the steps for the preparation and running of a complete C program with the help of examples.

**P.T.O.**

3. What do you mean by Data Types ? Why are data types needed in C language ? Explain the various types of data available in C with examples.
4. Differentiate between for.....loop, do.....while and while.....loop. Can break statement be used without any other loop ? Explain the importance of continue statement with the help of suitable examples.
5. What is an Array ? Which operations can you perform on arrays ? Write a program in C merge two sorted arrays.
6. (a) Distinguish between call by value and call by reference.  
(b) What are pre-processors ? Discuss the advantages of using pre-processors.
7. What do you mean by string procesing ? Write a program in C which reads a text and prints number of characters in a given text.

8. Write short notes on the following :

- (a) Structure and Union
- (b) I/O operations in C files
- (c) Recursion
- (d) Precedence of Operators.