

Roll No.

BCA-201(N)

**B. C. A. (Second Semester)
EXAMINATION, May, 2017**

(New Course)

Paper First

C PROGRAMMING

Time : Three Hours] [Maximum Marks : 75

Note : Section A is compulsory. Attempt any *two* questions each from Section B and Section C.

Inst. : The candidates are required to answer only in serial order. If there are many parts of a question, answer them in continuation.

Section—A

(Short Answer Type Questions)

Note : All questions are compulsory. Each question carries 3 marks.

1. (A) What are the rules for naming an array ?
- (B) Write a program to multiply any two 2×2 matrices.
- (C) Write a program to print sum and average of a 5 digit integer.

- (D) In which header file is the NULL macro defined ?
- (E) What will be the output of the following program :
- ```
#include < string.h >

main ()
{ Char s [] = "BCA !";
 Printf ("\n%d", *(s + strlen (s)));
}
```
- (F) Give a brief description of, how a file is organized in the form of tables.
- (G) Write a program that displays the contents of a file in reverse order.
- (H) What are the various parts of a structure declaration ? Explain each of them.
- (I) Write a program, using pointers, which accepts a string and displays the length of the string.

#### Section—B

##### (Long Answer Type Questions)

**Note :** Attempt any *two* questions. Each question carries 12 marks.

2. What are the advantages of functions ? Write a program to find whether the entered character is a lower case or upper case character.
3. How a union is different from a structure ? Declare a structure called date with the following members :
  - (i) date
  - (ii) month
  - (iii) year

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4. Name the function to write a block of data to a file in standard I/O. Write a program to check the number is prime or not.
5. What is the difference between a user-defined function and library function ? Write a program that compares two files.

**Section—C**

**(Long Answer Type Questions)**

**Note :** Attempt any *two* questions. Each question carries 12 marks.

6. Write short notes on the following :
  - (i) Macro substitution directives
  - (ii) Bitwise operators
  - (iii) Dynamic memory allocation
  - (iv) Nested structures
7. What are preprocessor directives ? List *three* types of them.
8. Write the use of library function `rename( )`. Write a program to delete a file using `remove( )` function.
9. Explain `fseek( )` function. Write a program to demonstrate writing of an entire structure to a file.