I Semester B.C.A. Degree Examination, November/December 2015

(Y2K8 Scheme) (R) COMPUTER SCIENCE

BCA - 105 : Programming Concepts Using C (70 : 2011-12 and Onwards) (60 : Prior to 2011-12)

Time: 3 Hours

Max. Marks: 70/60

Instructions: 1) Answer all questions.

2) Section **D** is applicable to students who have taken admission in **2011-12** and onwards **only**.

SECTION - A

1. Answer any ten questions. Each question carries one mark.

 $(10 \times 1 = 10)$

- 1) What is an algorithm?
- 2) Define a constant.
- 3) What are the different arithmetic operations in C?
- 4) Define type casting.
- 5) Mention any two mathematical functions in C.
- 6) Give the use of conditional operator with an example.
- 7) Give syntax of it-else statement.
- 8) What is an array.
- 9) What is an escape sequence?
- 10) What is the purpose of switch statement?
- 11) What is pointer?
- 12) Define structure.



SECTION - B

- II. Answer any five questions. Each question carries three marks. (5×3=15)
 - 13) Write an algorithm to find the factorial of a number.
 - 14) Write a C program to check the given number is odd or even.
 - 15) Give the syntax of switch statement with an example.
 - 16) Explain the difference between getch(), getche() functions.
 - 17) Write a C program to find the length of a string without using built-in functions.
 - 18) What is recursion? Explain with example.
 - 19) Give any three differences between structure and union.
 - 20) What are the different ways of passing parameter to a function.

SECTION - C

- III. Answer any five questions. Each question carries seven mark. (5×7=35)
 - 21) Write a program to generate and print first 'N' Fibonacci numbers.
 - 22) Explain the different bitwise operators available in C with example.
 - 23) Differentiate between while and do-while loops. Illustrate with example.
 - 24) Explain the structure of C program with example.
 - 25) Explain storage classeş in C.
 - 26) Write the syntax of declaring a function. Explain with an example.
 - 27) What is data type? Explain different data types.
 - 28) Explain with example how the structure is
 - a) Initialised.
 - b) Differentiate between local and global variables.

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SECTION - D

(Only for 2011-12 and Onwards)

IV. Answer any one question. Each question carries ten marks.	(1×10=10)
29) a) Write a program in C to implement linear search.	5
b) Explain any five string functions with syntax and example.	
30) Write a C program to find product of 2 matrices.	10