Reg. No. ⬛⬛⬛⬛⬛⬛⬛⬛

BCACAC 109

Credit Based First Semester B.C.A. Degree Examination, Oct./Nov. 2014
(New Syllabus) (2012 – 2013 Batch Onwards)
PROGRAMMING IN C

Time : 3 Hours

Max. Marks : 80

Note : Answer *any 10* questions from Part – **A** and *any one full*
question from **each** Unit of Part – **B**.

PART – A

(10×2=20)

1. a) What is the difference between character constant and string constant ? Give example for each.

    b) What is a variable ? How do you declare a variable ?

    c) Determine the value of each of the following assume a = 6, b = –2 and c = – 7 :

       i) $X = (a > b) ? a + 3 : b + 3 * c$

       ii) $Y = pow (sqrt (9), 3)$

    d) What is the use of break and continue statements in a program ?

    e) What do you mean by scope and life time of a variable ?

    f) What is an entry controlled loop ? Give example.

    g) Differentiate array and structure.

    h) Differentiate i ++ and ++ i with example.

    i) List the categories of user defined functions.

    j) What is a pointer ? How is it declared ?

    k) What is a union ? How does it differ from structure ?

    l) What is a file ? List an advantage of a file.

PART – B

UNIT – I

2. a) What are identifiers ? Write the naming rules of identifiers.

    b) List and explain arithmetic and relational operators in C with example.

    c) Explain the formatted output function with its syntax and example.   (5+6+4)

P.T.O.

3. a) Write and explain the structure of a C program.

   b) List and explain the fundamental data types in C ?

   c) What is type conversion ? Explain different types of type conversion.   **(5+5+5)**

UNIT – II

4. a) What is a loop ? Explain any two looping statements with its syntax and example.

   b) Explain the switch statement with syntax and example.

   c) Write a program to reverse a given number and check for palindrome.   **(5+5+5)**

5. a) Explain different forms of if statement with suitable examples.

   b) Explain break and continue with suitable example code.

   c) Write a program to input 'n' numbers into an array and display them in descending order.   **(6+4+5)**

UNIT – III

6. a) List and explain any four string functions with syntaxes and examples.

   b) Explain any two categories of user defined functions.

   c) What is Recursion ? Write a program to find the factorial of a number using recursion.   **(5+5+5)**

7. a) Explain the following in C with suitable examples.

   i) Register variables

   ii) Local variables

   b) What is a function ? Write the general form of User-defined function. Give an example.

   c) State the purposes of gets(), getchar() and puts() with syntax and example.   **(4+5+6)**

UNIT – IV

8. a) Explain the following :

   a) Array of structures

   b) Nested Structures

   b) Explain pointer expression with example.

   c) Explain the different modes of opening a file with example.   **(5+4+6)**

9. a) What are preprocessor directives ? Explain any two types of preprocessor directives.

   b) Explain the usage of Bit fields in structure.

   c) Distinguish between the following :

      i) printf() and fprintf()

      ii) feof() and ferror()

      iii) getc() and getchar().   **(5+4+6)**

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