**Credit Based First Semester B.C.A. Degree Examination,
November/December 2015
(Common to All Batches)
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

(2×10=20)

1. a) What is type conversion ? Name the two types of conversion.

   b) Write the equivalent while loop for the given for loop

      for(j = 1 ; j < = 5 ; j++)

      printf("%d", j+1);

   c) Differentiate between variable and symbolic name.

   d) What is the use of break and continue statement when used within the looping
      statements ?

   e) Write the 'C' expression for the following

      i) $z = 5a^3 + xy + 4$

      ii) $z = a^3 + b^3 + 4ac$

   f) What is entry controlled loop ? Give example.

   g) What do you mean by scope and lifetime of variables ?

   h) Distinguish between fscanf() and scanf() functions.

   i) Write a note on built in functions used to find the length of a string.

   j) What is the difference between getc() and getchar() function ?

   k) Name the 2 modes of opening a file.

   l) What is structure data type in C ? Mention one major difference between
      Structure and Unions.

BCACAC 109

PART – B

UNIT – I

2. a) What are constants ? How are they classified ? Give examples for each.

   b) Write a note on the following operator type with an example :

   i) binary   ii) sizeof()

   c) Describe the various fundamentals data types in 'C'.   (5+4+6)

3. a) Explain the scanf() function with example.

   b) Explain evaluation of expression and precedence of arithmetic operators with examples.

   c) Distinguish between

   i) putchar() and printf() functions

   ii) %f and %s specifications.   (5+6+4)

UNIT – II

4. a) Write a note on nesting of loops with suitable examples.

   b) What is a one dimensional array ? How do you declare and initialize a one dimensional array at compile time ? Give an example.

   c) Explain the different forms of if statement with example.   (5+5+5)

5. a) Explain switch statement with syntax and example.

   b) Differentiate while and do... while loops in 'C'.

   c) Explain ternary operator with syntax and example.   (6+5+4)

UNIT – III

6. a) What is a function ? Write general form of function. Give an example.

   b) Explain any two categories of user-defined functions.

   c) Explain automatic and static variables with examples.   (6+5+4)

7. a) Explain any four character functions with examples.

   b) Explain call by value and call by reference with suitable examples.

   c) Explain how strings are declared and initialized.   (6+5+4)

UNIT – IV

8. a) Explain any two preprocessor directives with suitable examples.

   b) Differentiate the following :

      i) fopen() and fclose()

      ii) getw() and putw().

   c) With syntax and example explain how structure variables and members are declared and defined in 'C'.   (5+4+6)

9. a) What is a bit field ? Give the general form of bit field definition with example.

   b) Explain nested structure and arrays of structure.

   c) What is a pointer ? How do you declare and initialize pointer variables ? Give examples.   (5+5+5)

   _____