



GD-072001

Seat No. _____

B.C.A. (Sem. II) Examination

March - 2019

BCA0C-201 : Advanced Programming Through 'C' Language

Time : 3 Hours]

[Total Marks : 70

Instructions

- 1) . Figures on the right indicate the marks.
- 2) All Questions are compulsory.
- 3) Answer of each question must start on a new page.
- 4) Answer of all sub-questions of a question should be written in continuous order.

1 Answer the following: (Any7) [14]

- (1) Write the storage classes available in C.
- (2) Explain pointer to pointer with suitable example.
- (3) Write a Short note on nesting of function.
- (4) What is the use of . (dot) and → operator.
- (5) What is the difference between feof() and ferror()?
- (6) Differentiate between structure and union.
- (7) Differentiate between `int *p[2]` and `int (*p)[2]`
- (8) Differentiate between function and macro.
- (9) What is difference between actual arguments and formal arguments.

2 Answer the following: (Any two) [14]

- (1) Which are the two categories of functions in C? Explain function definition, function call and function declaration each by giving an example.
- (2) Explain recursive function by giving example of displaying first N natural numbers in reverse order.
- (3) What is the difference between call by value and call by reference? Write a program that swaps values of two variables using call by reference.

3 Answer the following: (Any two) [14]

- (1) What is a structure? Explain the syntax of structure. How to declare the data members in a structure? Also show the ways to initialize the values of structure members with a template of structure.
- (2) How pointer works? Explain “Array of Pointers” and “Pointer to an Array” with examples.
- (3) Write a detailed note on Array of Structures and Nested Structures.

4 Answer the following(Any Two)

[14]

- (1) Explain “Function Pointers” with suitable examples.
- (2) Explain the usages of malloc (), calloc (), realloc () and free() with suitable example.
- (3) Define Preprocessor directive. Discuss any three preprocessor directives giving example.

5 Answer the following(Any Two)

[14]

- (1) What is a file? Explain fopen(), fclose(), fprintf() and fscanf() function with suitable example.
 - (2) What do you mean by Sequential and Random Access file? Explain fseek(), ftell() and rewind() functions with suitable example.
 - (3) What is command line argument? Explain argc() and argv() in command line arguments with suitable example.
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