

Roll No.

BCA–02

Introduction to Computer Programming Using C

Bachelor of Computer Application
(BCA–16/BCA–11)

First Semester, Examination, 2017

Time : 3 Hours

Max. Marks : 70

Note : This paper is of **seventy (70)** marks containing **three (03)** sections A, B, and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Explain the various data storage classes in C. Also define key properties of each data storage class with suitable example.
2. What is the difference between structure and union ? Explain with the help of an example.
3. What is recursion ? Explain with example.
4. How 1-D and 2-D array elements are stored in memory ? Explain with example and also write a program to make a list ordered using any sorting technique.

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of five (5) marks each. Learners are required to answer *six* (06) questions only.

1. Name and describe the various data types available in C.
2. What are the various loop constructs available in C ? Distinguish between while and do-while loops with example.
3. Differentiate between break and continue with examples.
4. What are the different control statements used in C Language ? Explain.
5. What do you mean by Dynamic Memory Allocation ? Explain with example.
6. Discuss any *four* string handling functions in C.
7. Define Array with an example.
8. What is an operand ? What is the relationship between operator and operand ?

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

1. Which of the following is not a valid variable name declaration ?
 - (a) int_A3
 - (b) int a_3
 - (c) int 3_a
 - (d) int_3a

2. A type cast is used to :
- (a) Define a new data type
 - (b) Force a value to be converted into a particular variable type
 - (c) Rename an old type
 - (d) None of these
3. The expression, $\text{int } i = 30 * 10 + 27$; evaluated as :
- (a) 327
 - (b) - 327
 - (c) 810
 - (d) 0
4. If $i = 6$ and $j = ++ i$, then the value of j and i will be :
- (a) $i = 6$ and $j = 6$
 - (b) $i = 7$ and $j = 6$
 - (c) $i = 6$ and $j = 7$
 - (d) $i = 7$ and $j = 7$
5. What will be the value of count after the following program is executed ? main()
- ```
{ int cout = 1, digit = 0;
while (digit <= 9){
printf ("%d/n", ++ count); ++ digit;}
}
```
- (a) 10
  - (b) 9
  - (c) 12
  - (d) 11

6. 'C' programming language is not a case sensitive language. (True/False)
7. We can declare structure inside main( ) function also. (True/False)
8. The printf( ) function automatically prints a new line character at the end of execution. (True/False)
9. The value of a local variable is available to the other function also. (True/False)
10. A pointer is a variable that points to another variable. (True/False)