

BCA-02/DIT-06
Introduction to Computer Programming
using C

Bachelor of Computer Applications
(BCA-11/16/17)

Diploma in Information Technology (DIT-17)
1st/ 2nd Semester Examination 2019

Time : 3 Hours

Max. Marks : 80

Note : This Paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section- A

(Long-Answer-type questions)

Note : Section 'A' Contains Five (05) Long-Answer type questions of Fifteen (15) marks each. Learners are required to answer any three (03) questions only.

(3 x 15 =45)

1. Describe the different types of operators available in 'C'? What are unary operators? How many operands are associated with a unary operator?
2. If sum of cubes of each digit of the number is equal to the number itself, that the number is called an armstrong number, for example, $153 = (1*1*1)+(5*5*5) + (3*3*3)$. Write a program using loops to print out all armstrong numbers between 1 and 500.
3. What is the difference between an array and a string? Write a program for concatenation and comparing of two strings input by keyboard.
4. What is the meant by pointer of structure and array of structures? Explain with the help of suitable examples.

(3)

5. What is the use of file in 'C' language? Name a function to input and output data in/from a file also name a function to copy the content of one file to another file.

Section - B

(Short-Answer-Type questions)

Note : Section 'B' contains eight (08) Short-answer type questions of Seven (07) marks each. Learners are required to answer any Five (05) questions only.

(5x7=35)

1. Determine the value of the following logical expression if $a = 5$, $b = 10$ and $c = -6$, $b > 15 \ \& \ \& \ c, 0 < \| a > 0$
 $a == c \| b > a$
 $(a/2.0 == 0.0 \ \& \ \& \ b/2.0 != 0.0 \| c < 0.0$

(4)

2. What is the difference between 1-D and 2-D array. Also give their ways of declaration with suitable examples.
3. What are storage classes? Describe automatic, external, static, register storage classes.
4. Explain the difference between constants and identifiers, and syntax and semantics. Give suitable examples.
5. Explain the preprocessor directives using suitable examples.
6. What is passing of pointer to a function? Define with suitable examples.
7. What are the differences between while and do while loop. Explain with the help of examples.
8. Differentiate between break, continue and go statements.