41124/A 240

Reg. No. | | | | | | | | |

I Semester B.C.A.4 Degree Examination, November/December 2017
(Regular)
PROGRAMMING IN C

Time : 3 Hours Max. Marks : 80

***Instruction** : **All** Sections are **compulsory**.*

SECTION– A

1. Answer **any 10** of the following : **(2×10=20)**

   a) What is C-programming ?

   b) What is an Algorithm ?

   c) Define the term variable and write the syntax of variable declaration.

   d) Covert the following expression to C expression.

   i) $x_1 = -b + \frac{\sqrt{b^2 - 4ac}}{2a}$ ii) $\text{Sin}\left(\frac{b}{\sqrt{a^2 + b^2}}\right)$.

   e) Write a syntax of while-loop statement.

   f) List the different types of error occurred during execution.

   g) What is global variable ?

   h) Define the term an array.

   i) What are arguments ?

   j) What is recursion ?

   k) Give the syntax of union definition.

   l) Define the term structure.

P.T.O.

SECTION– B

Answer **any four** of the following : **(5×4=20)**

2. Describe the basic steps involved in problem solving.
3. What is flowchart ? Draw and explain various symbols used in flowchart.
4. Write a program to find maximum between three numbers.
5. Discuss briefly one-dimensional array's declaration with an example.
6. Explain any 5 string handling functions.
7. Differentiate between array and structure.

SECTION– C

Answer **any four** of the following : **(10×4=40)**

8. a) Write the different between algorithm and flowchart.
   b) Write an algorithm and flowchart for computing n^{th} Fibonacci numbers. **(5+5=10)**
9. Demonstrate the usage of switch statement with an example.
10. Discuss the differant types of looping statements in C-programming.
11. Define the term function and explain the Call By Value method with an example.
12. a) How do you access members of the structures ? Explain with an example.
    b) Write a program to sort an array of elements in an ascending order.

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