Roll No. ....

BCA-I Sem.

18002

B. C. A. Examination, Dec. 2012

Programming Principles and Algorithm

(BCA-102)

(New)

Time : Three Hours]   *[Maximum Marks : 75*

Note: Attempt all the Sections as per instructions.

Section-A

(*Very Short Answer Questions*)

Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.   3×5=15

1.   What are keywords in C ? Explain their importance.

2.   Distinguish between pre-increment and post-increment operators in C.

3. Explain the use of goto & exit statement.

4. What do you mean by debugging ?

5. What are five characteristics of an algorithm ?

Section-B

(Short Answer Questions)

Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

7½×2=15

6. What are basic data types supported by C ? What are different types of data type modifiers ? Explain each with suitable examples.

7. Draw a flowchart to find Highest Common Factor (HCF) of two given numbers m and n. Apply all possible conditions.

8. What are storage classes in C ? Explain each with an example.

Section-C

(Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.

15×3=45

9. Distinguish between the following :
   (a) break and continue statements
   (b) while and do-while statements
   (c) nested if and switch statements.

10. What is user-defined function ? How can you return a value from a function ? Explain with an example. Also discuss different methods to pass parameters to a function by giving suitable examples.

11. (a) Write an algorithm to find sum of digits of a given number.

    (b) Write a program in C to generate multiplication tables of 11 to 20.

12. (a) What are formatted I/O statements in C ? Explain with examples.

    (b) Explain the block structure of a C program.

13. (a) What are header files in C ? How do you use them ? Also explain pre-processor directives in C with examples.

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(b) What are arithmetic operators ? Explain their precedence and associativity.