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(21218)
BCA-I Sem.

Roll No. ....

18002

B. C. A. Examination, Dec. 2018

Programming Principles & Algorithm

(BCA-102)

(New Course)

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

Note : Attempt questions from all Sections as - per instructions.

Section-A

(Very Short Answer Questions)

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

1. What do you mean by primitive and non-primitive data types ?

2. What is Algorithm ? Define with example.

3. Explain the working of 'Nested if-else' with suitable example.

4. What is the use of get ch ( ) and get char ( ) functions in C language ?

5. Explain the use of break and continue statement.

Section-B

(Short Answer Questions)

Answer 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. Write down the algorithm for solving towers of Hanoi problem.

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7. What is function ? Also explain the types of functions.

8. Explain the time and space complexity.

Section-C

(Detailed Answer Questions)

Answer any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.   15×3=45

9. Write an algorithm for finding maximum element of an array perform best, worst and average case complexity with appropriate order notations.

(10. Differentiate between flowchart and algorithm. Write an algorithm to compute the Fibonacci series for 'n' terms.

11. What is operator ? Explain the different types of operator in 'C'.

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12. What is the use of loops in 'C' ? Also explain the types of loop with suitable example.

13. Write the asymptotic notations used for best case, average case and worst case analysis of algorithms.

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