

Subject : Algorithm and Program Design

Day : Friday
Date : 03/06/2016



Time : 10.00 AM TO 1.00 PM
Max Marks : 80 Total Pages : 1

N. B. :

- 1) Attempt **ANY FIVE** questions from **Section -I** and **ANY TWO** questions from **Section-II**.
 - 2) Answers to both the sections should be written in the **SAME** answer book.
 - 2) Figures to the right indicate **FULL** marks.
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SECTION-I

- Q.1** How algorithm is represented through pseudo code and flow chart? (10)
- Q.2** a) Explain different control structures with example. (05)
b) Write an algorithm to accept any number and display sum of digit of that number. (05)
- Q.3** What is an Array? Explain array manipulation with suitable example. (10)
- Q.4** a) Write an algorithm to find factorial of accepted number. (05)
b) Write an algorithm to display accepted number is prime or not. (05)
- Q.5** Describe in detail benefits of structured programming and procedure oriented programming. (10)
- Q.6** Explain procedure for array manipulation such as removing the duplicates. (10)
- Q.7** Discuss the following concept with example. (10)
i) call by value
ii) call by reference

SECTION-II

- Q.8** Explain insertion sort with suitable example. (15)
- Q.9** Write an algorithm to find n^{th} term of Fibonacci sequence. (15)
- Q.10** Write an algorithm to find minimum and maximum number from array of 50 numbers. (15)

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