Subject : Elementary Algorithmics

Day : Wednesday   **S.D.E.** ‖‖‖‖‖‖‖‖   Time : 10.00 A.M. TO 1.00 P.M.
Date : 01/06/2016   **30386**   Max Marks : 80   Total Pages : 1

N.B.:
  1)   Attempt Any **FIVE** questions from section I. Each question carries **10** marks.
  2)   Attempt Any **TWO** questions from section II. Each question carries **15** marks.
  3)   Answer to both sections should be written in same answer book.

SECTION – I

Q.1 Write a pseudo code to find sum of digits of a given 5 digit number.   **(10)**

Q.2 Write an algorithm to search a character in a given string.   **(10)**

Q.3 Explain the concept procedure oriented programming with reference to C language.   **(10)**

Q.4 Give recursive definition to find GCD of given Two numbers. Write an algorithm for the same.   **(10)**

Q.5 Compare and contrast linear search and binary search.   **(10)**

Q6 Explain the concept space complexity   **(10)**

Q.7 Write short note on   **(10)**
  a)   Iteration
  b)   Verification

SECTION – II

Q.8 Write an algorithm to print the following pyramid. Also implement using C language.   **(15)**

```
1
2    3
4    5    6
7    8    9    10
```

Q.9 Write Quick Sort algorithm and trace it for given list.   **(15)**
    16   12   28   54   35   56   02   64

Q.10 Draw flow chart to find minimum and maximum from given list of integers. Also implement it using C language.   **(15)**

*   *   *   *   *