

S.D.E.

B.C.A. (2004 Course Sem- I : SUMMER - 2019)
SUBJECT: ALGORITHM & PROGRAM DESIGN

Day: Friday
Date: 03/05/2019

Time: 02.00 PM TO 05.00 PM
Max. Marks. 80

S-2019-4954

N.B.

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

SECTION - I

- Q. 1** What is Pseudocode? What are the characteristics of Pseudocode? **(10)**
- Q. 2** Write an algorithm to swap two numbers without using third variable. **(10)**
- Q. 3** Design an algorithm to calculate factorial of a number. **(10)**
- Q. 4** What is Procedure Oriented Programming? Explain the benefits of procedure oriented programming. **(10)**
- Q. 5** Explain various control structures used in C language. **(10)**
- Q. 6** What are functions? Explain 'Call by Value' with the help of an example. **(10)**
- Q. 7** Write short notes on any **TWO** of the following: **(10)**
- a) Variable
 - b) Bubble sort
 - c) Operators
 - d) Pointers

SECTION - II

- Q. 8** Find largest and second largest number from following list: **(15)**
12, 10, 9, 8, 30, 60, 70.
Write an algorithm to find largest and second largest number from a list.
- Q. 9** What is an array? Write a 'C' program for implementing linear search. **(15)**
- Q. 10** What is sorting problem? Write an algorithm for selection sort. **(15)**

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