

**Subject : Computer Algorithm & Problem Solving**

Day : Saturday  
Date : 17/12/2016



Time : 02.00 PM TO 05.00 PM  
Max Marks : 80 Total Pages : 1

**N.B.**

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

**SECTION - I**

- Q.1 Write an algorithm and draw flowchart to calculate gross sales. If the sale is above 5000 then 2% discount, for more than 8000, 3% discount is given and above 10000, 5% discount will be given. (10)
- Q.2 What are arrays? State different types of arrays. (10)
- Q.3 Explain the term algorithm. State its advantages and disadvantages. (10)
- Q.4 a) Explain the following terms: (04)
  - i) Constant ii) Variables
- b) What are different types of operators? (06)
- Q.5 Write an algorithm and draw flowchart to display the table of accepted number from the user. (eg. Input No. = 2) (10)
- Q.6 Write an algorithm to transfer the contents of one array to another array. (10)
- Q.7 Write short notes on (**ANY TWO**) (10)
  - a) Concept of Loop
  - b) Top Down Design
  - c) Subroutine

**SECTION – II**

- Q.8 Write an algorithm to display the given string in reverse order. Draw flow chart for same. (15)
- Q.9 In a payroll system, the dearness allowance depends upon basic pay of the employee. D. A. is calculated as Basic \* D.A. rate (15)

Salary Range	Applied DA
3500 <= Basic > 0	DA = Basic * 2.4
6000 <= Basic > 3500	DA = Basic * 2.10
7150 <= Basic > 6000	DA = Basic * 1.90
Basic > 7150	DA = Basic * 1.7

Draw Decision Table for the above case.
- Q.10 Write an algorithm to sort the numbers using any sorting method. Accept the numbers from the user. (15)

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