

S.D.E.

B.B.A. (2006 COURSE) SEM- II : WINTER - 2017
SUBJECT : COMPUTER ALGORITHM & PROBLEM SOLVING

Day : **Monday**
Date : **18/12/2017**

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

W-2017-4103

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) Answer to both the **SECTION** should be written in **SEPARATE** answer books.

SECTION - I

- Q.1** What is algorithm? Explain characteristics of algorithm. (10)
- Q.2** Draw flowchart to find highest and lowest number from given array. (10)
- Q.3** Describe the concept of loop. Explain do-while loop with example. (10)
- Q.4** Write an algorithm and draw flowchart to calculate net salary, where basic salary is 50,000/-. Dearness allowance is 10%, house rent allowance is 20% and provident fund deduction is 8%. (10)
- Q.5** What is flowchart? Draw and explain symbols used for flowchart. (10)
- Q.6** List different types of sorting algorithm and explain any one in detail. (10)
- Q.7** Write short notes on (**ANY TWO**) (10)
- a) Structured problem
 - b) Operators
 - c) Subroutine

SECTION – II

- Q.8** A company, manufacturer of washing machines offers the following facilities to its customers for purchase of the product. (15)
If customer is a dealer then commission 5% on the total value of purchase is given.
If customer purchases more than 5 machines then quantity discount of 20% is given.
If customer pays cash for purchase then cash discount of 3% is given to customers. Draw decision table.
- Q.9** Write an algorithm for multiplication of following two dimensional arrays. (15)
- $$\begin{bmatrix} a & b \\ c & d \end{bmatrix} * \begin{bmatrix} e & f \\ g & h \end{bmatrix}$$
- Q.10** Write an algorithm to check whether given number is prime number or not. (15)

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