

Reg No .....

Name:.....

**B.VOC DEGREE EXAMINATION, OCTOBER 2016**  
**FIRST SEMESTER - CORE COURSE (SOFTWARE DEVELOPMENT)**  
**VSD1S02TB-PROBLEM SOLVING TECHNIQUES**

**Time: Three Hours**

**Maximum: 80 Marks**

**PART A (Short Answer Questions)**

**1. Answer all questions (Each question carries 1 mark)**

1. What do you mean by translators?
2. What is meant by flow chart?
3. What is time complexity?
4. Write down the names of different types of programming languages?
5. Write the syntax of an array?
6. What is sorting?
7. Define Array.
8. What is merging?
9. What is an algorithm?
10. Explain problem definition phase.

(10\*1=10)

**PART B (Brief Answer question)**

**11. Answer any Seven questions in one or two sentences (Each question carries 2 marks)**

11. Write the differences between compiler and interpreter.
12. Define an algorithm.
13. Explain the logic of Fibonacci series up to n terms.
14. Draw the different flow charting symbols and write the function of each symbol.
15. What do you mean by worst case?

- 16 What you meant by referencing array element?
17. What is the logic of insertion sort?
18. Define merging.
- 19 Write down the names different types of sorting methods
20. What is hash key?
21. Write an algorithm for exchanging the values.
22. Write an algorithm for finding smallest divisor of an integer.

(8\*2=16)

### **PARTC (Descriptive/Short Answer Questions)**

**111 .Answer any Six questions in 50 words (Each question carries 6 marks)**

- 23 Discuss the fundamental technique for exchange of two numbers
- 24 Explain factoring method.
25. Draw a flow chart to check the given no is prime or not.
- 26 Draw a flow chart to check the given string is palindrome or not
- 27 Define hashing. Explain different methods ?
28. Write an algorithm to find the factorial of a given number. Illustrate with an example.
29. Write an algorithm to implement selection sort.
- 30 Write an algorithm to find the greatest element in an array.
- 31 What is searching? Explain.

(6\*4=24)

### **PART-D (long Essay)**

**1V .Answer any2 questions in 100 words (Each question carries 15 marks)**

- 31 Explain Sine computation.
- 32 Explain raising a number to a larger power with a suitable algorithm.
33. Write an algorithm for finding the kth smallest element in an array.
34. Explain any one sorting technique in detail with example.

(2\*15=30)

