March, 2011

COMPUTER SCIENCE

Time : 3 Hours 15 Minutes]

[Max. Marks : 90

PART – A

Note :   i)   Answer *all* the questions.

ii)   Each question carries *one* mark.   10 × 1 = 10

1. Which component of the CPU stores the memory address of the next instruction to be executed ?

2. When it is not possible to perform the operation of binary search ?

3. Define iteration.

4. Give the syntax of function prototype.

5. How do we assign an address to a pointer variable ?

6. What is meant by information ?

7. Define secondary key.

8. Name any *one* client-server network operating system.

9. Expand EDI.

10. What does chatting mean ?

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PART – B

Note :   i)   Answer any *ten* questions.

       ii)   Each question carries *two* marks.   10 × 2 = 20

11.   Give the specifications of inkjet printer.

12.   Analyze the insertion sort method of sorting data.

13.   Construct a top-down design to find the average of 3 numbers.

14.   Write the statements to show the input and output operations of a one-dimensional array.

15.   If str = "Computer Science" then what is stored in str with the following input statements ?

    i)   scanf ("%s", str);

    ii)   gets (str);

16.   Write the general structure of a user-defined function.

17.   How are individual elements of a structure accessed ? Give example.

18.   Write any *two* advantages of distributed data processing system.

19.   Define the following :

    i)   Tuple

    ii)   Domain.

20. Explain any *two* logical functions of MS-Excel.

21. What is network topology ? Mention any *two*.

22. What is the use of mark-up languages ? Name any *one*.

PART – C

Note :   i)   Answer the following questions.

       ii)   Each question carries *five* marks.   8 x 5 = 40

A.   Answer any *two* questions :

23. Explain any *five* factors affecting the processing speed of a CPU.

24. What are the different types of I-O ports ? Explain any *two*.

25. Explain briefly any *five* activities (periodic check-up) performed in computer maintenance.

B.   Answer any *one* question :

26. Write an algorithm to search an element in an array using binary search.

27. Sort the following elements in ascending order using bubble sort :

55, 44, 33, 22, 11

C.   Answer any *three* questions :

28. Write a C program to find the frequency of a character in a given string.

29. What are storage classes ? Explain any *two*.

30. What is call-by-reference ? Explain with a suitable example.

31. Explain any *five* types of file access modes with examples.

[Turn over

D.   Answer any *two* questions :

32.   Explain different qualities of information.

33.   Explain sequential file organization.

34.   Mention the different communication modes. Explain any *two*.

PART – D

Note :   i)   Answer any *two* questions.

ii)   Each question carries *ten* marks.   2 × 10 = 20

35.   Draw a flowchart to find the row sum and column sum for each row and each column of a given matrix.

36.   Write a C program to find the factorial of a number using recursive function.

37.   i)   Explain any *two* HTML tags.   2

ii)   Explain any *two* types of select command in SQL with syntax and example.   4

iii)   Write any *two* advantages and disadvantages of E-commerce.   4