

Code No. 41

Total No. of Questions : 37]

[Total No. of Printed Pages : 4

June/July, 2009

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. What is the function of Instruction Register ?
2. Expand UPS.
3. Define modularity.
4. What is searching ?
5. Give *one* characteristic of the subscript of an array.
6. What is the significance of * operator in pointers ?
7. Expand DML.
8. Define alternate key.
9. What is the main disadvantage of ring network topology ?
10. Mention any *one* HTML tag.

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PART – B

Note : i) Answer any *ten* questions.

ii) Each question carries *two* marks.

10 × 2 = 20

11. Write any *two* impact printers.
12. Mention different iterative programming constructs.
13. Construct a top-down module chart for finding the area of a rectangle.
14. How do you declare and initialize one-dimensional array ?
15. Give the syntax for `strrev ()` and `strcmp ()`.
16. Write a structure definition for a student with the following fields :

Regno, Name, Combination, Totalmarks.
17. Mention any *two* differences between call by value and call by reference.
18. List the steps involved in data processing cycle.
19. Write any *two* applications of on-line system.
20. Define DBMS. Name any *one* DBMS package.
21. Explain any *two* DATE functions used in spreadsheets.
22. What are the different internet services ?

PART – C

Note : i) Answer the following questions.

ii) Each question carries *five* marks.

8 × 5 = 40

A. Answer any *two* questions :

23. Briefly explain any *five* components of motherboard.
24. Write the approximate power consumption of various components of a PC.
25. What is a computer virus ? Explain any *two* viruses. Name any *two* antivirus software.

B. Answer any *one* question :

26. Trace binary search algorithm to find the location of the element 22 in the following list :
22, 33, 49, 57, 75
27. Write an algorithm for insertion sort.

C. Answer any *three* questions :

28. Write a C program to read and print elements of two-dimensional array.
29. List the different categories of user defined functions. Explain any *one*.
30. Write a C program to count number of vowels and consonants present in a given string.
31. Explain the various file handling functions available in C.

[Turn over

D. Answer any *two* questions :

32. Write merits and demerits of sequential file organisation.

33. Write the qualities of information.

34. Explain *e-commerce*.

PART – D

Note : i) Answer any *two* questions.

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

35. Write a flowchart to find the sum of the series :

$$1 + x + x^2 + x^3 + \dots + x^n$$

36. Write a recursive function to compute x^n , where $n = 0$, $n < 0$ and $n > 0$.

37. i) Write a note on functional overview of Unix operating system. 4

ii) Explain different types of computer network. 4

iii) Write Syntax for INSERT command in SQL. 2

