

Computer Science

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Science 2nd PUC (12th)

University Exam

Department of Pre-University

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Total No. of Questions : 37]
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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 × 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