

Score More ...



We Simplify the subject

Algorithms & Flowcharting

Ready for Board/ University Exams

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1. **Programming Languages**
 2. **Programming Model**
 - a. Defining the problem
 - b. Problem analysis
 - c. Designing
 - d. Program coding
 - e. Program Testing
 - f. Program Maintenance
 - g. Top-Down Design
 3. **Program tools**
 - a. Editor
 - b. Compiler
 - c. Interpreter
 - d. Linker
 - e. Loader
 - f. Assembler
 - g. Source File
 - h. Object File
 - i. Program Execution Sequence
 4. **Fundamentals of Problem Solving**
 - a. Data and Information
 - b. Variables and Constants
 - c. Writing Expressions in Computer
 - d. Counters and Accumulators
 - e. Programming Structures
Sequence, Selection, Iteration
 - f. Logic Development tools
 5. **Algorithm**
 - a. Concept
 - b. Conventions & Notations
 - c. Qualities and Capabilities of Good
Algorithm
 - d. Advantages & Disadvantages
 6. **Flowchart**

Concept, Types of Flowchart
Symbols & Notations
Advantages, Disadvantages
 7. **Pseudo code**

Concept, Notations
Advantages, Disadvantages
 8. **Dry Run & Test Data**
 9. **Flowchart Structures for Selection & Iteration**
 10. **Problems for practice**
 1. Sum of 2 numbers
 2. Average of 3 numbers
 3. Area of circle
 4. Area of triangle given base and height
 5. Area of triangle given 3 sides
 6. Area difference of two circles
 7. Simple Interest
 8. Convert temperature from degree Celsius ($^{\circ}\text{C}$)
to degree Fahrenheit ($^{\circ}\text{F}$)
 11. Interchange value of 2 variables (without using
third variable)
 12. Interchange value of 2 variables (using third
variable)
 13. Find Equation of a Straight Line
 14. Larger of 2 numbers (One Way Selection)
 15. Larger of 2 numbers (Two Way Selection)
 16. Largest of 3 numbers
 17. Largest of 4 numbers
 18. Find nature and Roots of Quadratic Equation
 19. Calculate Percentage and assign grade
 20. Calculate commission of salesman
 21. Calculate sum of natural numbers 1...N
 22. Print N terms of Fibonacci Series
 23. Calculate Factorial of a Number
 24. Calculate Power of a Number
 25. Find Largest of given 100 Numbers
 26. Calculate Sum of $x + x/2 + x/3 + \dots + x/n$
 27. Calculate Sum of $1 + 1/2 + 2/3 + \dots + n$ terms
 28. Calculate Sum of $1/x + 2/x + 3/x + \dots + n/x$
 29. Calculate Sum of $1 + x + x^2/2! + \dots + x^n/n!$
 30. Count Even & Odd Numbers (till user enters 0)
 31. Count entered numbers (till user enters zero)
and calculate their average
 32. Print and counts numbers in 1...100 which are
divisible by N
 33. Print 5 stars in single line
 34. Print 5 stars in five lines
 35. Print left aligned triangle of stars
 36. Print right aligned triangle of stars
 37. Print Center aligned triangle of stars
 38. Print all 3 digit even numbers & their square
 39. Input N and check whether Prime
 40. Print Prime Numbers in 1...N
 41. Print Prime Factors of Given Number
 42. Intelligence Level of a Person
- Concept of Recursion**
43. Calculate Factorial of N using Recursion
 44. Calculate ${}^n\text{C}_r$ using Recursion
 45. Calculate GCD using Recursion
 46. Find nth term of Fibonacci Sequence
- Concept of Array**
47. Input array of size N and print it (one Dim)
 48. Input array of size N and
 49. calculate Sum of Elements
 50. Sum of two one dimensional arrays
 51. Linear Search
 52. Binary Search
 53. Bubble Sort
 54. Input Array of size MxN and print it. (Two Dim)
- Concept of File Handling**
55. Creating a Text File
 56. Reading Data from a Text File
 57. Reading Records from a File
 58. Copy Contents of a File into Another File
 59. Read Employee Records & Print Net Pay