

Computer Programming and Utilization (110003)

Assignment – 1

- 1) Draw the Block diagram of Computer System and explain.
- 2) Name the major components of computer and give their function in brief.
- 3) Provide differences between
 - a. Software v/s Hardware
 - b. Flowchart v/s Algorithm
 - c. Compiler v/s Interpreter
 - d. System software v/s Application software
- 4) What is a Flowchart? Explain different symbols and discuss it with an example.
- 5) Explain in brief the features of C language.
- 6) Write a short note on : Basic structure of a C program.
- 7) Explain the 'C' Development life cycle using flowchart in detail (please refer fig 1.10 from E-balagurusamy book).
- 8) Why do we need to use comments in programs ?
- 9) What is the use of #define and #include directives?
- 10) What are trigraph characters? How are they useful? Explain any five of them.
- 11) Explain C Tokens in detail.
- 12) Differentiate: Constants v/s Symbolic Constants.
- 13) What are the difference between keyword and identifier?
- 14) Explain the different data types of C language
- 15) Explain the storage class specifiers in C.
- 16) Describe the characteristics and purpose of escape sequence characters?
- 17) Explain the following with examples :
 - a. Enumerated types
 - b. Type Def
- 18) Write a program to illustrate the use of symbolic constants in a real-life application.
- 19) Describe the purpose of sign and size modifier using an example.
- 20) Explain the classification of operators in C in brief.
- 21) Explain relational operators. When can we use relational operators?
- 22) Explain the ternary operator in C.
- 23) What is type conversion? Explain the type conversions supported by C language.
- 24) Discuss about operator precedence and associativity in detail.

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Assignment : 2

- 1) Explain the various I/O function with example in C.
- 2) What do you mean by branching?
- 3) Write the difference between branching and looping.
- 4) Write the difference between break and continue.
- 5) Explain (i) if (ii) if...else (iii) if...else if...else” ladder of C with neat diagram and a brief program code.
- 6) Discuss the dangling else problem.
- 7) Explain the syntax of switch...case statement. Write a program using switch...case statement.
- 8) Explain goto statement with an example?
- 9) Is it advisable to use goto in our program? How goto can help us in our program? Discuss it using an example.
- 10) Define Looping. What is the need for use of a loop?
- 11) Discuss and differentiate by giving an example. : Entry controlled loop and Exit controlled loop.
- 12) Compare and contrast (i) for (ii) while (iii) do while loop.
- 13) Differentiate: Counter – controlled loops v/s Sentinel- controlled loops.
- 14) Explain the break and continue statements using suitable example.
- 15) How would you decide the use of one of the three loops in C for a given problem?
- 16) What is a null statement? Explain a typical use of it.
- 17) When do we use the following statement?
for (; ;)
- 18) How can we use for loops when the numbers of iterations are not known?
- 19) Write a for statement to print each of the following sequences of integers.
 - a. 1,2,4,8,16,32
 - b. 1,3,9,27,81,243
 - c. -4,-2,0,2,4
 - d. -10,-12,-14,-18,-26,-42
- 20) Explain initialization of one and two dimensional array.
- 21) What happens when an array with a specified size is assigned
 - a. With values fewer than the specified size
 - b. With values more than the specified size

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