

### Week 1 Assignment Solution

1. What type of device is computer webcam?
  - a) Memory
  - b) Output
  - c) Storage
  - d) Input

Solution: (d) Input

2. Set of instructions to be provided to an electronic machine to perform a task is called
  - a) Programming
  - b) Processing
  - c) Computing
  - d) Compiling

Solution: (a) Programming is the process of creating a set of instructions that tell a computer how to perform a task.

3. Which of the following language does the computer understand?
  - a) Computer understands only C Language
  - b) Computer understands only Assembly Language
  - c) Computer understands only Binary Language
  - d) Computer understands only BASIC

Answer: (c) Computer understands only Binary Language

The Computer understands only binary language which is written in the form of 0s & 1s. A computer can understand assembly language but an assembler is required which convert the assembly language to binary language. Similarly, for understanding high level languages, compilers/interpreters are required.

4. Which of the following is known as the language made up of binary-coded instructions?
  - a) High level
  - b) BASIC
  - c) C
  - d) Machine

Answer: (d) Machine

The language made up of binary-coded instructions built into the hardware of a particular computer and used directly by the computer is machine language.

5. Algorithm is-
  - a) A process or set of rules to be followed in calculations or other problem-solving operations, especially by a human.
  - b) A process or set of rules to be followed to solve numerical problems only.
  - c) A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.
  - d) A process or set of rules to be followed in to solve logical problems only.

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Solution: (c) A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer

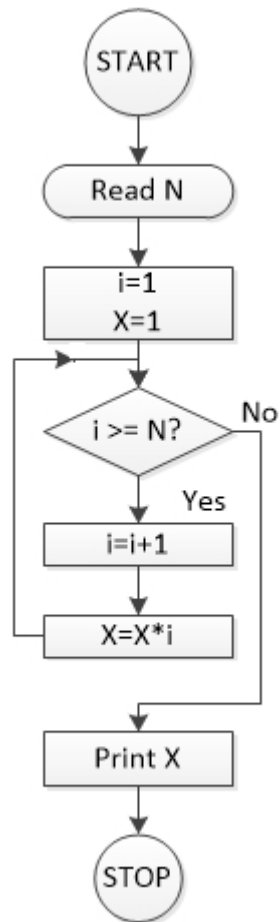
6. A 2D diagram to represent the steps to be followed to solve a problem is known as
- a) Flow-chart
  - b) Pseudo-code
  - c) Both (a) and (b)
  - d) None of these

Solution: (a) A flow-chart is a representation of an algorithm using diagrams.

7. Which one of the following statement is the most appropriate?
- a) Pseudo code is basically a diagrammatic representation of the algorithm. Whereas in flowchart normal English language is translated into the programming languages to be worked on.
  - b) Flowchart is diagrammatic representation of the algorithm. Pseudo code is just another name of algorithm.
  - c) Pseudo code is another name of programming. Whereas in flowchart is diagrammatic representation of algorithm.
  - d) Flowchart is basically a diagrammatic representation of the algorithm. Whereas in pseudo code normal English language is translated into the programming languages to be worked on.

Solution: (d) Flowchart is basically a diagrammatic representation of the algorithm. Whereas in pseudo code normal English language is translated into the programming languages to be worked on.

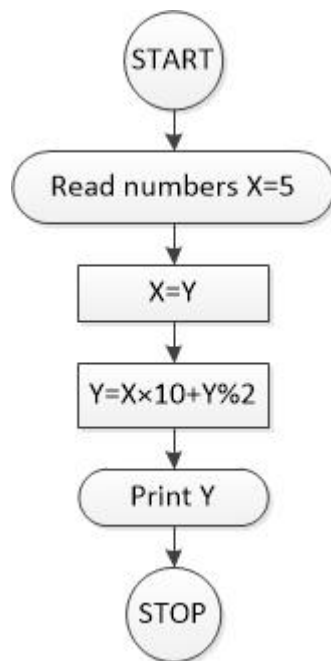
8. The input N from the user is 6. The output of the following algorithm is



- a) 21
- b) 720
- c) 1
- d) 1024

Solution: (c) The condition “ $i \geq N$ ” fails in the first iteration because  $i=1$  and  $N=6$ . Thus, the execution jumps directly to the print command. The initial assigned value of  $X$  will be printed which is 1.

9. What will be the output of the algorithm given below?



- a) 51
- b) 52
- c) 50
- d) Compilation error

Solution: (d) The assignment  $X=Y$  is incorrect. "Equals to" is a left to right assignment. The variable Y is not declared before assignment. This the compiler will throw error at this step.

10. The section of the CPU that selects, interprets and sees to the execution of program instructions

- a) Memory
- b) Register Unit
- c) Control Unit
- d) ALU

Solution: (c) Control unit of the computer helps in maintaining sequence of steps and execute the program