ASSIGNMENT-1 SOLUTION

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

Solution: (d) Input

2. 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.

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

3. The lowest form of Computer language is
   a) C
   b) BASIC
   c) FORTRAN
   d) Machine language

Solution: (d) Machine language.

4. An electronic machine can understand
   a) English statements
   b) Flow chart
   c) Binary digits
   d) Integers

Solution: (c) Only binary numbers are understood by electronic machines.

5. The smallest unit of memory is
   a) Byte
   b) Bit
   c) Nibble
   d) Baud

Solution: (b) bit

6. CPU uses the following to get the address of the next instructions from
   a) Register
   b) Instruction Register
   c) Program Counter
   d) RAM

Solution: (c) Program Counter

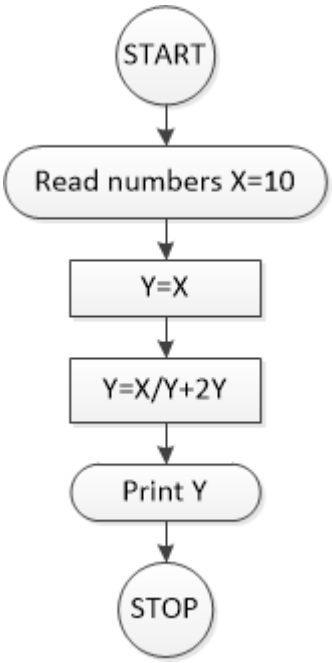
7. The correct sequence of memory access while running a computer program is
   a) RAM → DISK → RAM →CPU
   b) CPU → DISK→RAM→CPU
   c) DISK→RAM→CPU→DISK
   d) DISK→RAM→DISK→CPU

Solution: (a) While writing a program in terminal such as Turbo C, it is saved in RAM. Then we save the program in Hard Disk. While compilation, the compiler converts the high-level language to a machine level language and it is stored in RAM. The CPU access the machine level language from RAM and show the output in the in/out port. Thus, the correct sequence is RAM→DISK→RAM→CPU

8. 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.

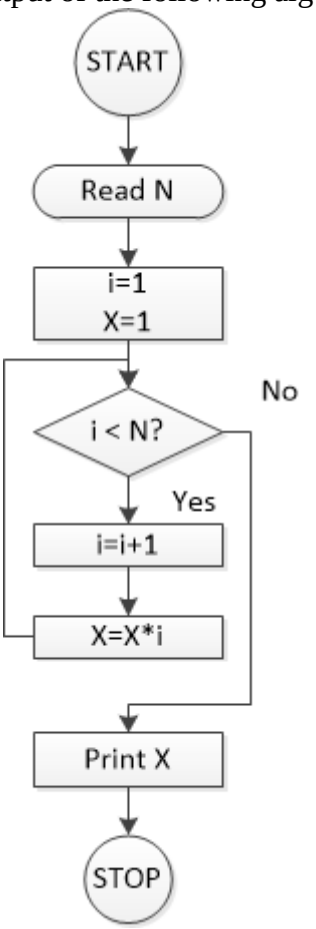
9. What will be the output of the flowchart given below?



   a) 20
   b) 21
   c) 10
   d) 0.33

Solution: (b) Y=X/Y+2Y => Y=10/10+2*10 => Y=1+20=21

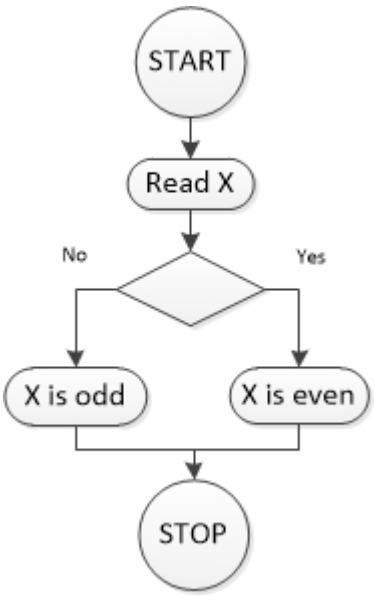
10. The input N from the user is 6. The output of the following algorithm is



a) 120
b) 720
c) 5040
d) 46656

Solution: (b) The flowchart finds the factorial of the number 6. Hence, the right answer is 6!=720

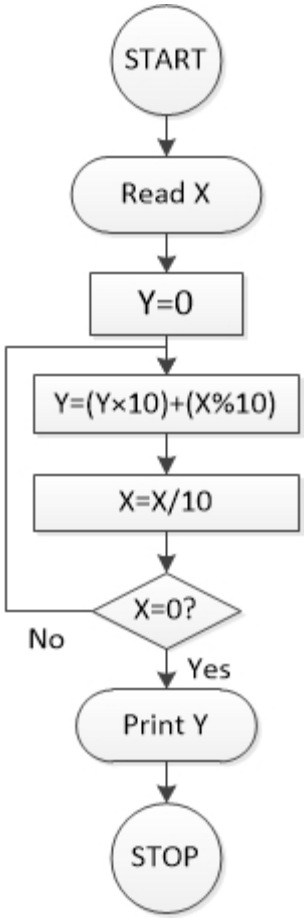
11. The following algorithm is used to find a number X is even or odd. What will be the content of the empty box?



a) X%10=0?
b) X/10=0?
c) X/2=0?
d) X%2=0?

Solution: (d) To find whether a number is odd or even, the number has to be divided by 2. If it is equals to zero, then the number is even. Thus, X%2=0? Condition is appropriate.

12. X is an integer (X=7531). The print value of Y of the flowchart below is



a) 16

b) 77553311
c) 1357
d) 0

Solution: (c) The algorithm finds the reverse of the number X. Hence, the output is 1357

13. 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

14. The _____ scans the entire C program and translates it as a whole into machine code.
a) Interpreter
b) Compiler
c) Program counter
d) Operating system

Solution: (b) Compiler

15. When we write X=10 and Y=X, which of the following memory assignment is correct
a) X and Y will have same location and 10 will be stored.
b) X and Y will have two distinct locations and 10 will be stored in both.
c) X and Y will have same location and only X will contain value 10
d) X and Y will have two distinct locations and only X will contain value 10

Solution: (b) X=10 will create a memory location for X and 10 will be stored. After declaring Y=X, a new memory location for Y will be created and the value of X will be copied in Y. This both of them will contain 10.