Algorithms and Pseudocode (MCQ's)

1. Which of the following is incorrect?

Algorithms can be represented:

Answer: b

Explanation: Representation of algorithms:

-As programs

-As flowcharts

-As pseudo codes.

2. When an algorithm is written in the form of a programming language, it becomes a _____

Answer: b

Explanation: An algorithm becomes a program when it is written in the form of a programming language. Thus, any program is an algorithm.

3. Any algorithm is a program.

Answer: b

Explanation: The statement is false. An algorithm is represented in the form of a programming language is called a program. Any program is an algorithm but the reverse is not true.

4. Capitalize initial keyword – This is a rule while writing a pseudo code.

Answer: a

Explanation: The statement is true. It is an important rule to capitalize the initial keyword while writing a pseudo code.

5. Keep the statement language _____ while writing a pseudo code.

Answer: b

Explanation: The statement's language should be independent. Other rules are to write only one statement per line and end multiline structures.

6. Which of the following is not a keyword?

Answer: c

Explanation: Start is not a Keyword. Other words like read, write, if, else, etc are keywords and convey a special meaning.

7. _____ is used to show hierarchy in a pseudo code.

Answer: a

Explanation: Each design structure uses a particular indentation pattern.

Indentation should be considered in the following cases:

Sequence

Selection

Loop.

8. _____ begins with lower case letters.

Answer: b

Explanation: Variables begin with a lowercase. They contain no spaces. They also involve the consistent use of names.

9. A statement used to close the IF block.

Answer: d

Explanation: The answer is ENDIF. It is used to close the IF block. ENDIF statement should be in line with the IF statement.

10. Programming based on stepwise refinement process.

Answer: a

Explanation: Structured programming is based on the stepwise refinement process-a method of problem decomposition common to all engineering disciplines and the physical, chemical, and biological sciences.

11. Top-down approach is followed in structural programming.

Answer: a

Explanation: The statement is true. Structural programming follows the top – down approach. Each module is further divided into sub modules.

12. A _____ is a directed graph that describes the flow of execution control of the program.

Answer: a

Explanation: A flowchart is a directed graph. It simply describes the flow of execution control of the program.

13. A program should be _____

Answer: b

Explanation: It is natural to write a program as a sequence of program structures such as sequences, choices and loops.

14. The following is the syntax for:

____(condition)

Action

Answer: c

Explanation: The if statement follows that syntax. If is a choice statement, Else is also a choice statement.

15. Which of the following is a loop statement?

Answer: c

Explanation: WHILE is a loop statement.

Syntax : while(condition)

action.

16. Semicolon is used after :

Answer: b

Explanation: Semicolon is used after function call otherwise it leads to compile-time errors. It shouldn't be used after definitions. It should also not be used after loops.

17. Which of the following isn't a loop statement?

Answer: b

Explanation: The answer is elif. Elif isn't a loop statement. It is a part of a choice statement.

Different Programming Language, Compiler & Interpreter (MCQ's)

1. What is the only thing that computers understand?

a) Machine Code

2. A language that requires no knowledge of the hardware or the instruction set of the computer is called...

a)A High Level Language

3. A language that is close to human language and which is easy to write, debug and maintain is known as...

a)A High Level Language

4. Resolving errors in a program is known as...

a)Debugging

5. Which of the following is not a high level programming language?

a)Assembly

6. Languages that relate to the architecture and hardware of a specific computer are known as...

b)Low Level Languages

7. What is the name for the software used to convert an assembly language program into machine code?

a)Assembler

8. The 3 main types of translators are...

a)Assemblers, Compilers & Interpreters

9. Which type of translator creates an executable file of machine code from a program written in a high level language?

a)Compiler

10. Software that translates and executes a high level language program one line at a time is known as a?

b)Interpreter

11. An error in a program that prevents the program from running as expected.

b)Bug

Flowcharts (MCQ's)

1. The symbol denotes _____

Answer: c

Explanation: The symbol denotes a terminal. It is used for indication of start and stop nodes of a program.

2. In computer science, algorithm refers to a pictorial representation of a flowchart.

Answer: b

Explanation: The statement is false. The correct statement would be: In computer science, flowchart refers to a pictorial representation of an algorithm.

3. The process of drawing a flowchart for an algorithm is called _____

Answer: d

Explanation: It is called as flowcharting. A flowchart is nothing but a pictorial representation of an algorithm.

4. Actual instructions in flowcharting are represented in _____

a) Circles

b) Boxes

c) Arrows

d) Lines

Answer: b

Explanation: The actual instructions are written in boxes. Boxes are connected by using arrows to indicate the exact flow of a flowchart and the order in which they are to be executed.

5. A box that can represent two different conditions.

a) Rectangle

b) Diamond

c) Circle

d) Parallelogram

Answer: b

Explanation: A diamond shape box denotes either a truth value or a false value. It jumps onto two different statements following it via flow lines.

6. There should be certain set standards on the amount of details that should be provided in a flowchart.

a) True

b) False

Answer: b

Explanation: The statement is false. There should be no set standards on the amount of details that should be provided in a flowchart.

7. A detailed flowchart is called _____

a) Stack

b) Macro

c) Micro

d) Union

Answer: c

Explanation: A detailed flowchart or a flowchart with more details is called as micro flowchart. It represents all the components of the algorithm that is followed.

8. Which of the following is not an advantage of a flowchart?

a) Better communication

b) Efficient coding

c) Systematic testing

d) Improper documentation

Answer: d

Explanation: Flowcharts provide a proper documentation. It also provides systematic debugging.

9. A flowchart that outlines the main segments of a program.

a) Queue

b) Macro

c) Micro

d) Union

Answer: b

Explanation: The answer is Macro Flowchart. A macro flowchart outlines the important components of a program. It therefore shows fewer details.

10. The operation represented by parallelograms.

a) Input/Output

b) Assignment

c) Comparison

d) Conditions

Answer: a

Explanation: The input/output operations are represented by parallelograms. They generally are used to display messages during input and output part of a program.

11. A _____ is a connector showing the relationship between the representative shapes.

a) line

b) arrow

c) Process

d) box

Answer: b

Explanation: Arrows are the connectors that show the relationship between different shapes. They also show the flow of the program.