SECTION-A

Answer the following questions. Each question carries 1 mark. **20X1=20**

1. The technique of breaking down one big solution into smaller modules is called_____
   a. Modules
   b. Modular approach
   c. Reliable
   d. Efficient
2. Advantages of Modular Programming
   a. Testing is faster
   b. Tested independently
   c. Easy to debugging and maintenance
   d. All of these
3. Correcting the error is called?
   a. Bug
   b. Debugging
4. Step by step process is called
   a. Algorithm
   b. Pseudocode
   c. a and b
   d. None of these
5. _____ is used when a set of statements in to be repeated many times.
   a. Decision Control Structures
   b. Selection Control Structures
   c. Loop Control Structures
   d. All of these
6. Example for Decision Control Structures is
   a. if statement
   b. for statement
   c. while statement
   d. do- while statement
7. Can we write a programming code without Control Structures?
   a. Yes
   b. No
   c. May be
8. Advantages of an algorithm are
   a. It is equally understandable by programmers and non-programmers.
   b. It can be part of documentation and assist in program maintenance.
   c. Anyone reading the solution can understand both problem and solution.
   d. All of the above
9. How many minimum inputs need in an algorithm?
   a. Zero
   b. One
   c. Infinite
   d. None of these
10. Is an algorithm must terminate after a finite number of steps?
    a. Yes
    b. No
    c. May be
    d. None of these
11. In which type of the Documentation explains about data flow diagrams, entity relationship diagram?
    a. Design Document
    b. Requirements Document
    c. Technical Documentation
    d. Testing Document

12. In which stage we look different ways of solving the problem?
    a. Understanding the problem
    b. Analyzing the problem
    c. Developing the solution
    d. Coding
13. What is the first stage in problem solving?
    a. Understanding the problem
    b. Analyzing the problem
    c. Coding
    d. developing the solution
14. Variable is used for
    a. Handle the data
    b. Refer to a memory location
    c. Store one value at a time
    d. All of the above
15. When do you tell an algorithm is efficiency?
    a. It takes the least time
    b. It uses the least memory
    c. It is shortest to describe
    d. All of the above
16. Does computer has IQ?
    a. True
    b. False
17. Does computer solve problem itself?
    a. True
    b. False
18. A name that identities any variable, object, function, class or method is called----------
19. An expression that is not complied but written as a note is called_____
20. Distance of text from left to right margin is called----------

SECTION –B (10M) Descriptive Part

NOTE: Answer any two questions, each question carries 5 Marks

1. (a) What are the characteristics of a good program? (2.5 M)
   (b) Write an algorithm to check whether a given year is leap year or not. (2.5 M)

2. (a) What is program maintenance? Explain different types of Maintenance? (2.5 M)
   (b) Write an algorithm to calculate factorial of a given number (Here you need to accept a number from the user, and to print its factorial value.) (2.5 M)

3. (a) Explain different types of errors in detail? (2.5 M)
   (b) Write an algorithm to check whether a given number is prime or not? (2.5 M)

4. What is problem solving? What are the primary steps involved in problem solving? Explain in detail? (5 M)

---------- **ALL THE BEST** ----------