



**MODEL PAPER, 2023**

Subject: Computer Studies

Grade- X

M. Marks: 60

Time: 3 Hours

**SECTION "A"**

**Note: Attempt all the questions from this section. Each question carries one mark.**

**(12)**

**1. To cook a meal is an example of**

- A. problem.                      B. strategy.                      C. algorithm.                      D. solution.

**2. Step by step solution to a problem in simple language is called**

- A. problem-solving.                      B. algorithm.                      C. flowchart.                      D. data structure.

**3. All variables declared in function definition are called**

- A. local variable.                      B. Instance variable.                      C. global variable.                      D. static variable.

**4. The process of converting source code into object is called**

- A. compiling.                      B. executing.                      C. linking.                      D. saving.

**5. If there are three nodes in the data structure, then how many binary trees will be possible?**

- A. Two                      B. Three                      C. Four                      D. Five

**6. The high-level language has a syntax that is**

- A. easily readable by humans.                      B. easily readable by machines.  
C. easily readable by both.                      D. easily readable by the scanner.

**7. In general, the errors detected by a user are**

- A. syntax errors.                      B. semantic errors.                      C. run-time errors.                      D. logical errors.

**8. In computer programming, loop with in a loop is known as**

- A. inner loop.                      B. outer loop.                      C. nested loop.                      D. closed loop.

**9. In C++ Language, gets() is a pre-defined function. It is used to read**

- A. stream.                      B. string.                      C. any number.                      D. only integers.

**10. Which of the following stores data in a hierarchical manner?**

- A. Stack                      B. Queue                      C. Array                      D. Tree

**11. To compare two values of a variable, the correct operator is**

- A. >                      B. <                      C. =                      D. ==

**12. Which operator adds the first operand to the second operand and gives the result to the first operand?**

- A. +=                      B. ++                      C. ++                      D. +=

**SECTION "B"**  
**(SHORT ANSWER QUESTION)**

**Note: Attempt any eight questions from this section. (3 x 8 = 24)**

**(24)**

**Q1. Write a program In C++ using Arithmetic Assignment Operators.**

**Q2. Describe Linear Data Structure and Its types.**

**Q3. Write down the purpose and syntax (any three).**

**do- while.                      break,      cout.              switch.**

**Q4. Define logical Operators with example.**

**Q5. Describe local variables used in C++.**

**Q6. Simplify the following Boolean expression.**

$$Z=AB + A(B+C)+ B(B+C)$$

**Q7. Remove the error(s) from the following statements: (if any)**

**i) cout <<I read In class x                      ii) if(c < 10):                      iii) cin!<< abc;**

**Q8. What is the Importance of flowchart for solving a problem?**

**Q9. Describe Script Area In Scratch Editor.**

**Q10. Define the term function.**

**Q11. Write the use of the following codes of Scratch Editor:**

**(i) forever                      (ii) walt                      (iii) play**  
**(iv) sound                      (v) goto x,y                      (vi) say**

**Q12. What is the use of Scratch Editor?**

**SECTION "C"**  
**DESCRIPTIVE ANSWER QUESTIONS**

**Note: Attempt any four questions from this section. (6 x 4 = 24)**

**(24)**

**Q13: Why we make block or statements using braces?**

**Q14: Draw the logic circuit of the given Boolean expression.**

1)  $Y = \overline{ABC(A+D)}$                       2)  $X = \overline{AB(C+D)}$

**Q15: Why do we need Language Translator? Describe Its types.**

**Q16: Write an algorithm to calculate the multiplication and division any two numbers.**

**Q17: State the function declaration or function prototype.**

**Q18: Write down the output or the following program.**

```
It include<iostream>  
using namespace std;  
Int main ( )  
(  
    Int b;  
    for (b=0;b<=10;b++)  
    (  
        cout << "\n" << b;  
    )  
    return 0;  
}
```