• **Question 1**

1 out of 1 points

A control structure alters the normal sequential flow of execution in a program.

Answer

☑ Selected Answer: ☑ True
Correct Answer: ☑ True

• **Question 2**

0 out of 1 points

The symbol > is a logical operator.

Answer

☑ Selected Answer: ☑ False
Correct Answer: ☑ False

• **Question 3**

0 out of 1 points

In C++, both ! and != are relational operators.

Answer

☑ Selected Answer: ☑ False
Correct Answer: ☑ False

• **Question 4**

1 out of 1 points

In C++, the logical operator AND is &&.

Answer

☑ Selected Answer: ☑ True
Correct Answer: ☑ True

• **Question 5**

1 out of 1 points
In C++, !, &&, and || are called relational operators.

Answer
Selected Answer: False
Correct Answer: False

- **Question 6**

0 out of 1 points

The expression \( (x >= 0 \land x <= 100) \) evaluates to false if either \( x < 0 \) or \( x >= 100 \).

Answer
Selected Answer: False
Correct Answer: False

- **Question 7**

1 out of 1 points

Suppose \( P \) and \( Q \) are logical expressions. The logical expression \( P \land Q \) is true if both \( P \) and \( Q \) are true.

Answer
Selected Answer: True
Correct Answer: True

- **Question 8**

1 out of 1 points

The value of the expression \( 'a' < 'A' \) is true.

Answer
Selected Answer: False
Correct Answer: False

- **Question 9**

1 out of 1 points

The value of the expression \( 7 + 8 <= 15 \) is true.

Answer
Selected Answer: True
Correct Answer: True

- **Question 10**

1 out of 1 points

In C++, && has a higher precedence than ||.
Answer
Selected Answer: True
Correct Answer: True

- **Question 11**

0 out of 1 points

In C++, all relational operators are evaluated before logical operators.
Answer
Selected Answer: False
Correct Answer: False

- **Question 12**

1 out of 1 points

The operators != and == have the same order of precedence.
Answer
Selected Answer: True
Correct Answer: True

- **Question 13**

1 out of 1 points

Suppose found = true and num = 6. The value of the expression (!found) || (num > 6) is false.
Answer
Selected Answer: True
Correct Answer: True
• **Question 14**

1 out of 1 points

Suppose \( x = 10 \) and \( y = 20 \). The value of the expression \((x \geq 10) \land (y \leq 20)\) is true.

Answer

Selected Answer: True
Correct Answer: True

• **Question 15**

1 out of 1 points

The value of the expression

\[ 6 < 5 \lor 'g' > 'a' \land 7 < 4 \]

is true.

Answer

Selected Answer: False
Correct Answer: False

• **Question 16**

1 out of 1 points

The result of a logical expression cannot be assigned to an `int` variable, but it can be assigned to a `bool` variable.

Answer

Selected Answer: False
Correct Answer: False

• **Question 17**

1 out of 1 points

Consider the following statements.

```c
int score;
string grade;
```
if (score >= 65)
    grade = "pass";
else
    grade = "fail";

If score is equal to 75, the value of grade is "pass".
Answer
Selected Answer: ✔️ True
Correct Answer: ✔️ True

**Question 18**
1 out of 1 points

Every if statement must have a corresponding else.
Answer
Selected Answer: False
Correct Answer: False

**Question 19**
1 out of 1 points

The expression in the following if statement evaluates to true only if the value of score is 50.

if (score = 50)
    grade = 'Z';
Answer
Selected Answer: ✔️ False
Correct Answer: ✔️ False

**Question 20**
1 out of 1 points

Suppose x is 5 and y is 7. Choose the value of the following expression:

(x != 7) && (x <= y)
Answer
Selected Answer: ✔️
true
Correct Answer: ✓
true

• Question 21

0 out of 1 points

Suppose that $x$ is an int variable. Which of the following expressions always evaluates to true?

Answer

Selected Answer: ✓
$(x > 0) || (x <= 0)$

Correct Answer: ✓
$(x > 0) || (x <= 0)$

• Question 22

1 out of 1 points

Which of the following operators has the highest precedence?

Answer

Selected Answer: ✓
!

Correct Answer: ✓
!

• Question 23

1 out of 1 points

Which of the following expressions correctly determines that $x$ is greater than 10 and less than 20?

Answer

Selected Answer: ✓
$10 < x && x < 20$

Correct Answer: ✓
$10 < x && x < 20$
• **Question 24**
1 out of 1 points

What is the output of the following C++ code?

```cpp
int x = 35;
int y = 45;
int z;
if (x > y)
    z = x + y;
else
    z = y - x;

cout << x << " " << y << " " << z << endl;
```

Answer
Selected Answer: 35 45 10
Correct Answer: 35 45 10

• **Question 25**
1 out of 1 points

What is the output of the following code?

```cpp
if (6 > 8)
    cout << " ** " << endl;
else if (9 == 4)
    cout << "****" << endl;
else
    cout << "*
```

Answer
Selected Answer: *
Correct Answer: *