

**Islamic university of Gaza**  
**Faculty of Engineering**  
**Intelligent systems Engineering**



**Final Exam-2025**

**C++**

Question 1

Not yet  
answered

Marked out of  
1

Flag  
question

Do the following two statements in (I) and (II) result in the same value in sum?

(I):

```
for (int i = 0; i < 10; i++) {  
    sum += i;  
}
```

(II):

```
for (int i = 0; i < 10; ) {  
    i++;  
    sum += i;  
}
```

Select one:

- ☐ Yes
- ☒ No

Question 2

Not yet  
answered

Marked out of  
1

Flag  
question

How many iterations will the following loop execute:

```
int x=0;  
do {  
    int data;  
    cin>>data;  
    cout<<data;  
    x++; } While(x <10)
```

Select one:

- ☐ infinite
- ☐ 9 iterations
- ☒ 10 iterations
- ☐ 1 iterations
- ☐ 0 iterations

Question 3

Not yet  
answered

Marked out of  
1

Flag  
question

Suppose `i` is an `int` type variable. Which of the following statements display the character whose ASCII is stored in variable `i`?

Select one:

- ☒ a. `cout << static_cast<char> i;`
- ☐ b. `cout << i;`
- ☐ c. `cout << i++;`
- ☐ d. `cout << static_cast<int> i;`

Question 4

Not yet  
answered

Marked out of  
1

Flag  
question

Which of the following code segments will find the maximum of three integer numbers

Select one:

- ☐

```
if(a>b&&a>c)
    max=a;
else
    max=b;
else
    max=c;
```
- ☐

```
if ( a > b )
    if( b > c )
        max= a;
    else
        max=b;
```
- ☐

```
max=a;
if(max < b)
    max=b;
else
    max=c;
```
- ☒

```
max=a;
if(max < b)
    max=b;
else if (max < c)
    max=c;
```

Question 5

Not yet  
answered

Marked out of  
1

Flag  
question

Which statements will be executed by the following code?

```
int i = 1, j = -1;  
switch (i)  
{  
case 0 : //statement1  
        break;  
case 2: //statement2  
        break;  
case 3: //statement3;  
}
```

Select one:

- ☐ all of the statements.
- ☐ statement2
- ☒ none of the statements.
- ☐ statement1
- ☐ statement3
- ☐ statement2 and statement3.

Question 6

Not yet  
answered

Marked out of  
1

Flag  
question

What will be the elements of the array returned by the following method:

```
void funcA(int list[] ){  
    int size=4;  
    int s=0;  
    for (int k = 0; k < size; k++) {  
        int i = 0;  
  
        do {  
            i+=2;  
            s+=2; } while (i < 3);  
        list[k]=s;  
    }  
}
```

Select one:

- ☐ 8 14 20 26
- ☒ 4 8 12 16
- ☐ none of the choices
- ☐ 9 18 27 36
- ☐ 6 12 18 24

**Question 7**

Not yet  
answered

Marked out of  
1

Flag  
question

**What will the following function do?**

```
int myFunction(int numbers[], int size) {  
    int num = numbers[0];  
    int k=0;  
    for (int i=0; i<size; i++)  
        if (numbers[i] > num) {  
            num = numbers[i];  
            k=i;  
        }  
    return k;  
}
```

Select one:

- ☒ find the index of the maximum value in the array
- ☐ find the index of the minimum value in the array
- ☐ sort the elements of the array in ascending order
- ☐ find the maximum value stored in the array
- ☐ find the minimum value stored in the array
- ☐ sort the elements of the array in descending order

**Question 8**

Not yet  
answered

Marked out of  
1

Flag  
question

**What is the index variable for the element at the first row and second column in array a?**

Select one:

- ☐ a. a[1][0]
- ☐ b. a[1][1]
- ☐ c. a[2][1]
- ☒ d. a[0][1]

**Question 9**

Not yet  
answered

Marked out of  
1

Flag  
question

Analyze the following code:

```
int data , s ;  
cin >> data ;  
s = data;  
do {  
cin >> data ;  
if ( s < data)  
s = data;  
} while (data != 0);
```

Suppose the user enter the following input: 4 12 67 8 9 2 1 4 98 13 14 1 8 11 33 9 0  
What will be the value of s at the end of the loop?

Select one:

- ☐ 247
- ☒ 98
- ☐ 1
- ☐ 15
- ☐ the loop is infinite
- ☐ 0

**Question 10**

Not yet  
answered

Marked out of  
1

Flag  
question

Which code line could possibly "call" this function?

```
void somefunction ( int count, double number)  
{ ...  
}
```

Select one:

- ☐ int value = somefunction(10, 3.0);
- ☒ somefunction(10, 3.0);
- ☐ int value = somefunction(10.2, 3.0);
- ☐ double value = somefunction(10.2, 3.0);

Question 11

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which code line could possibly "call" this function?

```
void somefunction ( int count, double number)
{ ...
}
```

Select one:

- ☐ double value = somefunction(10.2, 3.0);
- ☐ int value = somefunction(10.2, 3.0);
- ☐ int value = somefunction(10, 3.0);
- ☒ somefunction(10, 3.0);

**Question 12**

Not yet  
answered

Marked out of  
1

Flag  
question

What is the output of the following code snippet?

```
int marks = 70;

if( marks > 70 )
{ cout<<"Distinction";
  cout<<"Congratulations";
}
else if( marks > 35 )
{
  cout<<"Pass";
}
else
{ cout<<"Fail";
  cout<<"Better luck next time";
}
```

Select one:

- ☐ a. Distinction Congratulations
- ☐ b. Distinction
- ☒ c. Pass
- ☐ d. Distinction Congratulations Pass
- ☐ e. Compilation Errors

Question 13

Not yet  
answered

Marked out of  
1

Flag  
question

```
What will be printed by the following code:  
string firstarray[5] = {"zero","one", "two","three", "four" };  
int indexarray[5] = { 4, 2, 1, 0, 3 };  
for (int i = 4; i >= 0; i--)  
cout << firstarray[indexarray[i]]<<" ";
```

Select one:

- ☐ zero one two three four
- ☐ none of the above
- ☐ four three two zero
- ☒ three zero one two four

Question 14

Not yet  
answered

Marked out of  
1

Flag  
question

What will be the output of the following code?

```
int i = 1;  
int j = ++i;  
cout << "i is " << i;  
cout << " and j is " << j;
```

Select one:

- ☐ a. i is 1 and j is 2
- ☐ b. i is 2 and j is 1
- ☒ c. i is 2 and j is 2
- ☐ d. i is 1 and j is 1

Question 15

Not yet  
answered

Marked out of  
1

Flag  
question

\_\_\_\_\_ are called stream insertion and stream extraction operators for sending output to the console and reading from the console, respectively.

Select one:

- ☒ a. >> and <<
- ☐ b. << and >>;

Question 16

Not yet  
answered

Marked out of  
1

Flag  
question

Assume `int t[] = {1, 2, 3, 4}`. What is `t[4]`?

Select one:

- ☐ 5
- ☐ 3
- ☐ 0
- ☐ 4
- ☒ none of the above

Question 17

Not yet  
answered

Marked out of  
1

Flag  
question

which of the codes in the choices is equivalent to the following code :

```
if(x>0)
    y=1;
else
    y=-1;
```

Select one:

- ☐ Code2: `x=(x>0? y=1: y=-1);`
- ☐ Code1:  
`y=1`  
`if(x>0)`  
`y=-1;`
- ☐ Code4:  
`y=(x>0? -1: 1);`
- ☒ Code3:  
`y=(x>0? 1: -1);`

Question 18

Not yet  
answered

Marked out of  
1

Flag  
question

Which of the following is an augmented operator:

Select one:

- ☐ ++
- ☒ \*=
- ☐ &&
- ☐ >=
- ☐ None of them

Question 19

Not yet  
answered

Marked out of  
1

Flag  
question

Suppose items is an array of 100 integers what will be the value of the variable funny after executing the following code:

```
int funny = items[0];  
for (int i = 0; i < 100; i++) {  
    if (items[ i ] > funny)  
        funny = items[ i ];  
    cout<<funny;  
}
```

Select one:

- ☐ The minimum value stored in the array items
- ☒ The maximum value stored in the array items
- ☐ None of these
- ☐ The first value stored in the array items
- ☐ The last value stored in the array items

Question **20**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

What will be the function of the following method:

```
bool SomeMethod ( int[] list, int size) {  
    for(int i=0 ; i < size ; i++)  
        if (list[i] >= 0)  
            return false;  
    return true;  
}
```

Select one:

- ☐ The method returns true if the last element of the array is negative
- ☒ The method returns true if all the elements of the array are negative
- ☐ The method has a compiler error
- ☐ The method returns true if the first element of the array is positive
- ☐ The method returns true if all the elements of the array are positive

Question 21

Not yet  
answered

Marked out of  
1

Flag  
question

What will be the elements stored in the array list at the end of the following code segment:

```
int list[5] = {0};  
int i = 0;  
do  
{  
    if ( i == 3 )  
        break;  
    list[i] = i;  
    i++;  
} while(true);
```

Select one:

- ☒ 0 1 2
- ☐ 0
- ☐ 0 1 2 0 0
- ☐ 0 1 2 3 4
- ☐ Runtime Exception with Index Of Bounds Exception

Question **22**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

What will be the value of **num** after executing the **fourth** iteration of the following loop ( draw tracing table then answer)

```
for (int k = 2, num=0; k < 20; k++) {  
    if (k % 2 == 1)  
        num+=k;  
    else  
        num++;  
  
}
```

Select one:

- ☐ 12
- ☐ 11
- ☐ 21
- ☒ 10
- ☐ 4

## Question 23

Not yet  
answeredMarked out of  
1Flag  
question

What will be the elements of the array list after returning from the following method:

```
void myFunction(int list[]){  
    int size=7;  
    list[0] = 1;  
    list[1] = 2;  
    for(int i= 2; i<7 ; i++)  
        list[i] = list[i-1]+list[i-2];  
}
```

Select one:

- ☐ 1 2 4 6 8 10 12
- ☐ 1 2 3 4 5 6 7
- ☐ 1 2 3 5 7 9 11
- ☐ None of these
- ☐ 1 2 2 3 3 5 5
- ☒ 1 2 3 5 8 13 21

## Question 24

Not yet  
answeredMarked out of  
1Flag  
question

Which statements will be executed in the following code snippet?

```
int x= 25, y=2;  
if (x>15)  
    if(y>15)  
        // statement1  
else  
    // statement2
```

Select one:

- ☐ statement1
- ☐ None of the statements
- ☒ statement2
- ☐ the code has an Error

Question **25**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Suppose matrix is a two dimensional array with three rows and three columns what will be the value of the variable funny at the end of the following code:

```
int funny = 0;  
int k = 1;  
for (int m = 0; m < 3; ++m)  
    funny = funny + matrix[k][m];
```

Select one:

- ☒ the sum of the second row in array matrix
- ☐ the sum of first column in array matrix
- ☐ the sum of the second column in array matrix
- ☐ the sum of first row in array matrix
- ☐ the sum of all elements in array matrix

Question 26

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which of the following statements is correct?

Select one:

- ☐ a. Every function must end with a semicolon;
- ☐ b. Every line in a program must end with a semicolon.
- ☒ c. Every statement in a program must end with a semicolon.
- ☐ d. Every comment line must end with a semicolon;

Question 27

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

fill in the space **by inspecting what will be the parameters** in the following method definition:

```
char myMethod( string str, int n ) {  
    if(str.size()>=n)  
        return s[n] ;  
    return 'f'  
}
```

Question 28

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

In a function prototype, the names of the parameter variables may be left out.

Select one:

- ☐ false
- ☒ true

Question 29

Not yet answered

Marked out of 1

Flag question

Which of the following could be a correct header (not the body) for the following function that return the corresponding uppercase letter, given a lowercase letter.

Select one:

- ☒ char fun(char ch)
- ☐ void fun(int x, string str)
- ☐ int fun(string str)
- ☐ string fun(int x);

Question 30

Not yet answered

Marked out of 1

Flag question

What value will the following method return if the argument passed to it is 9 (i.e x=9)

```
int myMethd(int x)
{
    if(x>4)
        return x;
    return x+3;
}
```

Select one:

- ☒ 9
- ☐ 2
- ☐ 12
- ☐ The method has a compiler error
- ☐ 9 12

Question 31

Not yet  
answered

Marked out of  
1

Flag  
question

What is the following function designed to do?

```
int myFunction(string str) {  
    int hero = 0;  
    char ch= 'e' ;  
    for (int i = 0; i < str.size(); i++)  
        if (str.at(i) == ch || str.at(i) == toupper(ch) )  
            hero++;  
    return hero;  
}
```

Select one:

- ☐ counts the occurrences of letters e in a given string
- ☐ counts the occurrences of letters e and E in a given string
- ☐ counts the occurrences of any given character in a given string
- ☐ counts the occurrences of lowercase letters in a string
- ☐ replace small letters in the string by capital letters

Question **32**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

How many iterations will the following loop execute:

```
for (int count = 1; count <= 10; )  
{ int data;  
  cin>>data;  
  cout<<data+10;  
}
```

Select one:

- ☐ 9 iterations
- ☐ infinite
- ☐ 10 iterations
- ☐ 5 iterations
- ☐ 0 iterations

Question **33**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which of the following expression will yield 0.5?

Select one:

- ☐ a.  $1 / 2$
- ☐ b. `(double) (1 / 2)`
- ☐ c. `(int) 1.0 / 2`
- ☐ d. `(double) 1 / 2`

Question **34**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Do the following two statements in (I) and (II) result in the same value in sum?

(I):

```
for (int i = 0; i < 10; ++i) {  
    sum += i;  
}
```

(II):

```
for (int i = 0; i < 10; ) {  
    sum += i;  
  
    i++;  
}
```

Select one:

- ☐ Yes
- ☐ No

Question **35**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

fill in the space in the following function header:

myMethd(string st1, int number2)

```
{    if(number2<0)
        return
    for(int i=0; i<number2 ; i++)
        cout<<st1;
}
```



## Question 35

Not yet answered

Marked out of 1

Flag question

Which of the following sequence of statements is equivalent to the statement

$$i = ++j + k--;$$

Select one:

- ☐  $j=j+1; i=j+k; k=k-1;$
- ☒  $i = (j+1) + (k-1);$
- ☐  $i = (j+1) + k;$
- ☐  $k=k-1; i=j+k; j=j+1;$
- ☐  $i=j+k; k=k-1; j=j+1;$

الصفحة التالية

Previous activity

[← self\\_test\\_Exam](#)



Marked out of 1

 Flag question

What will be the value of **num** after executing the **fourth** iteration of the following loop ( draw tracing table then answer)

```
for (int k = 2, num=0; k < 20; k++) {  
    if (k % 2 == 1)  
        num+=k;  
    else  
        num++;  
}
```

Select one:

☐ 4

☒ 10

☐ 12

☐ 21

☐ 11

[الصفحة التالية](#)[Previous activity](#)[self test Exam](#)



Marked out of 1

Flag question

What will be the elements stored in the array list at the end of the following code segment:

```
int list[5] = {0};
```

```
int i = 0;
```

```
do
```

```
{
```

```
if ( i == 4 )
```

```
break;
```

```
list[i] = i;
```

```
i++;
```

```
} while(true);
```

Select one:

☐ 0 1 2 3 0

☐ 0 1 2 0 0

☐ Runtime Exception with Index Of Bounds Exception

☐ 0

☒ 0 1 2 3 4

Question 8

Not yet answered



Marked out of 1

Flag question

How many iterations will the following loop execute:

```
int count =1;
While(count <10)
{ int data;
cin>>data;
cout>>data;
count ++;
}
```

Select one:

- ☐ infinite
- ☒ 10 iterations
- ☐ 9 iterations
- ☐ 0 iterations
- ☐ 11 iterations

Question **35**

Not yet answered

Marked out of 1

Flag question



Not yet answered

Marked out of 1

Flag question

A \_\_\_\_\_ eliminates the need to place a function definition before all calls to the function.

Select one:

- ☒ function header
- ☐ function actual parametrs)
- ☐ function signature
- ☐ function prototype

Question **34**

Not yet answered

Marked out of 1

Flag question

How many iterations will the following loop execute:

```
int count =1;  
While(count <10)
```



Not yet answered

Marked out of 1

🚩 Flag question

Which code line could possibly "call" this function?

```
char somefunction ( bool count,  
string s)  
{ ...  
}
```

Select one:

- ☐ somefunction(true, "Name");
- ☐ bool value = somefunction( 0 , "3.0");
- ☐ string value = somefunction( 1 , "Name");
- ☒ char value = somefunction( A>C , "3.0");

Question **32**

Not yet answered

Marked out of 1

🚩 Flag question

Which statements will be executed in the following code snippet?

```
int x= 25, y=20;
```



Flag question

What will be the function of the following method:

```
bool SomeMethod ( int[] list, int  
size) {  
for(int i=0 ; i < size ; i++)  
if (list[i] >= 0)  
return false;  
return true;  
}
```

Select one:

- ☐ The method has a compiler error
- ☐ The method returns true if the first element of the array is positive
- ☒ The method returns true if all the elements of the array are negative
- ☐ The method returns true if the last element of the array is negative
- ☐ The method returns true if all the elements of the array are positive

الصفحة التالية



A>C , "3.0");

### Question 32

Not yet answered

Marked out of 1

Flag question

Which statements will be executed in the following code snippet?

```
int x= 25, y=20;
```

```
if (x>15)
```

```
    if(y>15)
```

```
        // statement1
```

```
    else
```

```
        // statement2
```

Select one:

- ☐ None of the statements
- ☐ statement1 and Statement2
- ☒ statement1
- ☐ statement2

### Question 33

Not yet answered

Question **26**

Not yet answered

Marked out of 1

Flag question

What is the output of the following code snippet?

```
int a = 25;  
if(a <= 25)  
    cout<<" one";  
if(a > 10)  
    cout<<" two";  
else  
    cout<<" three";
```

Select one:

- ☐ a. one
- ☐ b. three
- ☐ c. Compilation error
- ☒ d. one two

Question **27**

Not yet answered

Question **27**

Not yet answered

Marked out of 1

🚩 Flag question

\_\_\_\_\_ are called stream insertion and stream extraction operators for sending output to the console and reading from the console, respectively.

Select one:

- ☐ a. >> and <<
- ☒ b. << and >>;

Question **28**

Not yet answered

Marked out of 1

🚩 Flag question

Analyze the following code:

```
int data , s ;  
cin>>data ;  
s = data;  
while (data != 0) {
```



2

Question **29**

Not yet answered

Marked out of 1

 Flag question

Which code line could possibly "call" this function?

```
double somefunction ( char count,  
double number)  
{ ...  
}
```

Select one:

- ☐ char value = somefunction(10, 3.0);
- ☐ double value = somefunction('9', 3.0);
- ☒ char value = somefunction('A', 3.0);
- ☐ somefunction(10, 3.0);

Question **30**

Not yet answered



What is the following function designed to do?

```
void myFunction(char ch, int n) {  
    string s="";  
    for (int i = 0; i < n; i++)  
        s+=ch;  
    cout<<s ; }
```

Select one:

- ☒ prints the character ch n of times
- ☐ prints the sum of all characters in a string
- ☐ prints the sum of all characters in a string that equals to ch
- ☐ prints an empty string
- ☐ prints a string with n random characters

Question **22**

Not yet answered

Question **25**

Not yet answered

Marked out of 1

 Flag question

What will be the elements of the array list after returning from the following method:

```
void myFunction(int list[]){  
    int size=7;  
    list[0] = 1;  
    list[1] = 2;  
    for(int i= 2; i<7 ; i++)  
        list[i] = list[1]+list[i-1];  
}
```

Select one:

- ☒ 1 2 4 6 8 10 12
- ☐ 1 2 3 5 8 13 21
- ☐ 1 2 3 4 5 6 7
- ☐ None of these
- ☐ 1 2 3 5 7 9 11
- ☐ 1 2 2 3 3 5 5

الصفحة التالية



Not yet answered

Marked out of 1

 Flag question

What is the exact output of the following code?

```
double area = 3.5;
```

```
cout << "area";
```

```
cout << area;
```

Select one:

- ☐ a. 3.5 3.5
- ☐ b. 3.53.5
- ☒ c. area3.5
- ☐ d. area 3.5

Question **25**

Not yet answered

Marked out of 1

 Flag question

What will be the elements of the array list after returning from the



oodle.iugaza.edu.ps



Marked out of 1

 Flag question

Which of the codes in the choices is equivalent to the following code:  
(given even is a boolean variable)  
`if(even==true)`  
`x = 10;`

Select one:

- ☐ `x= (even? x : 10);`
- ☐ none of them
- ☐ `if(!even)`  
`x = 10;`
- ☐ `x=(even? 10);`
- ☒ `if(even)`  
`x = 10;`

Question **24**

Not yet answered

Marked out of 1

 Flag question

What is the exact output of the  
following code?



## Question 19

Not yet answered

Marked out of 1

Flag question

Which of the following could be a correct header (not the body) for the following function that return the corresponding uppercase letter, given a lowercase letter.

Select one:

- ☐ string fun(int x);
- ☒ char fun(char ch)
- ☐ void fun(int x, string str)
- ☐ int fun(string str)

## Question 20

Not yet answered

Marked out of 1

Flag question

What will be the value of **num** after executing the **fourth** iteration of



Not yet answered

Marked out of 1

Flag question

What value will the following method return if the argument passed to it is 9 (i.e  $x=9$ )

```
int myMethd(int x)
{
    if( $x > 4$ )
        return x;
    if( $x \leq 4$ )
        return  $x + 3$ ;
}
```

Select one:

- ☐ 9 12
- ☐ 2
- ☒ 9
- ☐ The method has a compiler error
- ☐ 12

Question **23**

Not yet answered



What is the value of  
`static_cast<double>(5/2)?`

Select one:

- ☐ a. 3;
- ☐ b. 3.0;
- ☒ c. 2.0;
- ☐ d. 2.5;
- ☐ e. 2;

### Question 13

Not yet answered

Marked out of 1

 Flag question

How many rows are there in array  
`matrix[6][5]`?

Select one:

- ☐ a. 5
- ☐ b. 30
- ☐ c. 11
- ☒ d. 6



## Question 15

Not yet answered

Marked out of 1

Flag question

What is the output of the following code.

```
cout << "a" << setw(6) << "abc";
```

(Note: □ represents a space)

Select one:

- ☐ a. a□abc
- ☐ b. aabc□□□
- ☐ c. □□□□□a□□□abc
- ☒ d. a□□□abc
- ☐ e. aabc

[الصفحة التالية](#)[Previous activity](#)[← self\\_test\\_Exam](#)



## Question 17

Not yet answered

Marked out of 1

 Flag question

If you declare an array double  
`list[] = {3.4, 2.0, 3.5, 5.5}`, `list[1]` is

-----.

Select one:

- ☒ 2.0
- ☐ 3.4
- ☐ 3.4
- ☐ undefined
- ☐ 5.5

## Question 18

Not yet answered

Marked out of 1

 Flag question

What will the following function  
do?



Tag question

Which statements will be executed by the following code?

```
int i = 1, j = -1;  
switch (i)  
{  
case 0 : //statement1  
    break;  
case 2: //statement2  
    break;  
default: //statement3  
}
```

Select one:

- ☐ none of the statements.
- ☐ statement1
- ☐ statement2
- ☐ all of the statements.
- ☒ statement3
- ☐ statement2 and statement3.

الصفحة التالية

Previous activity

← [self\\_test\\_Exam](#)



Which of the following code segments will find the maximum of three integer numbers

Select one:

- ☒ `max=a;  
if(max < b)  
max=b;  
else if (max < c)  
max=c;`
- ☐ `if ( a > b )  
if( b > c)  
max= a;  
else  
max=b;`
- ☐ `if(a>b&& a>c)  
max=a;  
else  
max=b;  
else  
max=c;`
- ☐ `max=a;  
if(max < b)  
max=b;  
else  
max=c;`

Question 12

Not yet answered



## Question 9

Not yet answered

Marked out of 1

 Flag question

Suppose matrix is a two dimensional array with three rows and three columns what will be the value of the variable funny at the end of the following code:

```
int funny = 0;
```

```
int k = 0;
```

```
for (int m = 0; m < 3; ++m)
```

```
funny = funny + matrix[k][m];
```

Select one:

- ☐ the sum of all elements in array matrix
- ☒ the sum of the first row in array matrix
- ☐ the sum of each column in array matrix
- ☐ the sum of the first column in array matrix
- ☐ the sum of each row in array matrix

## Question 10



### Question 3

Not yet answered

Marked out of 1

 Flag question

Every statement in C++ ends with \_\_\_\_\_, which is called a statement terminator.

Select one:

- ☐ a. a comma (,)
- ☒ b. a semicolon (;)
- ☐ c. a period (.)
- ☐ d. an asterisk (\*)

### Question 4

Not yet answered

Marked out of 1

 Flag question

Do the following two statements in (i) and (ii) result in the same value



## Question 6

Not yet answered

Marked out of 1

Flag question

What will be printed by the following code:

```
string firstarray[5] = {"one",  
"zero","two", "four","three" };  
int indexarray[5] = { 0, 3, 4, 1, 2 };  
for (int i = 4; i >= 0; i--)  
cout << firstarray[indexarray[i]]<<"  
";
```

Select one:

- ☐ three zero one two four
- ☐ none of the above
- ☐ zero one two three four
- ☐ four three two zero
- ☒ two zero three four one

## Question 7

Not yet answered

Marked out of 1

Flag question

- ☐ 120 200 16
- ☒ 16 200 120
- ☐ 16 120 200

What value will the following method return if the argument passed to it is 70 (i.e  $k=70$ )

```
string myMethd(int k) {  
    if(k>40)  
        return "pass";  
    return "Fail"; }
```

Select one:

- ☐ pass
- ☐ empty string
- ☐ Fail
- ☐ The method has a compiler error
- ☐ pass Fail

### Question 21

Not yet  
answered

Marked out of  
1

Flag  
question

Which of the following could be a correct header (not the body) for the

Select one:

- ☐ int fun(string str)
- ☐ string fun(string str, int x)
- ☒ void fun(int x, string str)
- ☐ string fun(int x);

### Question 22

Not yet  
answered

Marked out of  
1

Flag  
question

Which code line could possibly "call" this function?

```
bool somefunction ( char count, string s)
{ ...
}
```

Select one:

- ☐ somefunction('c', "Name");
- ☐ char value = somefunction('A', "3.0");
- ☐ string value = somefunction('c', "Name");
- ☒ bool value = somefunction('g', "3.0");

### Question 23

Not yet  
answered

Marked out of  
1

Flag  
question

Which code line could possibly "call" this function?

```
int somfunction ( int count, double number)
{ ...
}
```

Select one:

- ☒ int value = Somfunction(10, 3.0);
- ☐ double value = somefunction(10.2, 3.0);
- ☐ int value = somefunction(10.2, 3.0);
- ☐ somefunction(10, 3.0);

### Question 24

Not yet  
answered

Marked out of

Analyze the following code:

```
int data, s;
cin >> data;
s = data;
```

do ( ... )

Note that the ASCII for character A is 65. The output of the following is:

```
Char ch = 'A';  
cout<<(ch = ch + 1);
```

Select one:

- ☐ a. Illegal expression
- ☐ b. B
- ☐ c. A1
- ☐ d. 66

What will be the elements stored in the array list at the end of the following code segment:

```
int list[5] = {0};  
for(int i=0; i < 5; i++)  
{  
    if (i == 3 || i == 2)  
        continue;  
    list[i] = i;  
}
```

Select one:

- ☐ 0 1 0 0 4
- ☐ 0 1 2 3 4
- ☐ 0 1 2 0 4
- ☐ 0
- ☐ 0 1 0 3 4

How many iterations will the following loop execute:

```
for (int count = 1; count <= 10; count++)  
{  
    int data;  
    cin >> data;  
    cout << data + 10;  
    count--;  
}
```

Select one:

- ☐ infinite
- ☐ 10 iterations
- ☐ 9 iterations
- ☐ 0 iterations

Question 3

Not yet answered

Marked out of 1

Flag question

What will be the function of the following method:

```
bool SomeMethod ( int[] list, int size) {
    for(int i=0; i < size; i++)
        if (list[i]%2==1)
            return false;
        return true;
    }
```

Select one:

- ☐ The method returns true if the first element of the array is even
- ☐ The method returns true if all the elements of the array are odd
- ☐ The method returns true if all the elements of the array are even
- ☐ The method has a compiler error
- ☐ The method returns true if the length of the array is odd

Question 4

Not yet answered

Marked out of 1

Flag question

Which of the following is an augmented operator:

Select one:

- ☐ None of them
- ☐ ++
- ☐ >=
- ☐ &&
- ☐ \*=

Question 5

Not yet answered

Marked out of 1

Flag question

What will be the value of **num** after executing the **fourth** iteration of the following loop ( draw tracing table then answer)

```
for (int k = 2, num=0; k < 20; k+=2) {
    if (k % 2 == 1)
        num+=k;
    else
        num++;
}
```

Select one:

10

11

12

How many rows are there in array matrix[6][5]?

Select one:

- ☐ a. 30
- ☐ b. 11
- ☐ c. 6
- ☐ d. 5

What is the output of the following code snippet?

```
int marks = 20;
```

```
if( marks > 70 )
{
    cout<<"Distinction";
    cout<<"Congratulations";
}
else if( marks > 35 )
{
    cout<<"Pass";
}
else
{
    cout<<"Fail";
    cout<<"Better luck next time";
}
```

Select one:

- ☐ a. Distinction Congratulations
- ☐ b. Fail Better luck next time
- ☐ c. Compilation Errors
- ☐ d. Distinction Congratulations Pass

Which code line could possibly "call" this function?

```
int somfunction ( int count, double number)  
{ ...  
}
```

Select one:

- ☐ int value = somefunction(10.2, 3.0);
- ☒ somefunction(10, 3.0);
- ☐ int value = Somfunction(10, 3.0);
- ☐ double value = somefunction(10.2, 3.0);

What will be the elements of the array returned by the following method:

```
void funcA(int list[]){  
    int size=4;  
    int s=0;  
    for (int k = 0; k < size; k++) {  
        int i = 0;  
        do {  
            i+=2;  
            s+=2; } while (i < 3);  
        list[k]=s;  
    }  
}
```

Select one:

- ☐ 9 18 27 36
- ☐ none of the choices
- ☐ 4 8 12 16
- ☐ 8 14 20 26
- ☐ 6 12 18 24

What will be the function of the following method:

```
bool SomeMethod ( int[] list, int size) {  
    for(int i=0 ; i < size ; i++)  
        if ( (list[i] >= 'A' && list[i] <= 'Z' ) )
```



The \_\_\_\_\_ function returns a raised to the power of b.

Select one:

- ☐ a. exponent(a, b)
- ☐ b. power(a, b)
- ☐ c. pow(a, b)
- ☒ d. pow(b, a)

What value will the following method return if the argument passed to  
int myMethd(int x)

```
{  
if(x>4)  
return x;  
return x+3;  
}
```

Select one:

- ☐ 9 12
- ☐ The method has a compiler error
- ☐ 9
- ☐ 12

**What will the following function do?**

```
int myFunction(int numbers[], int size) {  
    int num = numbers[0] ;  
    int k=0;  
    for (int i=0; i<size; i++)  
        if (numbers[i] > num) {  
            num = numbers[i];  
            k=i ;  
        }  
    return k;  
}
```

Select one:

- ☐ sort the elements of the array in ascending order
- ☐ find the minimum value stored in the array
- ☐ find the index of the minimum value in the array
- ☐ sort the elements of the array in descending order
- ☒ find the maximum value stored in the array
- ☐ find the index of the maximum value in the array

Which of the following codes assigns `result` to 1 if `n` is an odd number and greater than 10; otherwise, assigns `result` to 0?

- A. if (n % 2 != 0 && n > 10) result = 1; else result = 0;
- B. if (n % 2 == 0 || n <= 10) result = 1; else result = 0;
- C. if (n % 2 == 0 && n > 10) result = 1; else result = 0;
- D. if (n % 2 != 0 || n <= 10) result = 1; else result = 0;

☐ D

☐ C

☐ A

☐ B

What will be the values of `sum` and `i` after executing the following code?

```
int sum = 0;
int i = 1;
while (i <= 5) {
    if (i % 2 != 0) {
        sum += i;
    }
    i++;
}
```

Which keyword is used to define a loop that executes at least once?

- ☐ repeat
- ☒ do
- ☐ for
- ☐ while

What will be the values of 'count' and 'i' after executing the following code?

```
int count = 0;
int i = 1;
while (i <= 10) {
    if (i % 3 == 0) {
        count++;
    }
    i++;
}
```

- ☐ 5, 11
- ☐ 2, 11
- ☐ 4, 11
- ☐ 3, 11

Analyze the following code:

```
int main() {  
    int i = 0;  
    while ( i < 10);  
        // Statement1  
  
    i++;  
    return 0;  
}
```

Select one:

- ☐ The program compiles despite the semicolon (;) on the while loop line, and executes statement1 1 time.
- ☐ The program compiles despite the semicolon (;) on the while loop line, and executes statement1 10 times.
- ☐ The program has a compile error because of the semicolon (;) on the while loop line.
- ☒ the program has an infinite loop and will never execute statement1.

What will be the values of `sum` and `i` after executing the following code?

```
int sum = 0;  
int i = 1;  
while (i <= 5) {  
    if (i % 2 != 0) {  
        sum += i;  
    }  
    i++;  
}
```

- ☐ 5, 6
- ☐ 10, 6
- ☐ 6, 6
- ☐ 9, 6

What is the output of the following code snippet?

```
int marks=55;  
if(marks >= 80)  
    cout<<"DISTINCTION";  
else if(marks >=35)  
    cout<<"PASS";  
else  
    cout<<"FAIL";
```

Select one:

- ☐ a. Compiler error
- ☐ b. PASS
- ☐ c. FAIL
- ☐ d. DISTINCTION

How many iterations will the loop execute?

```
int x = 10;  
while (x < 5) {  
    x--;  
}
```

- ☐ Infinite loop
- ☐ 0 iterations
- ☐ 5 iterations
- ☐ 1 iterations

What will be the value of 'result' after executing the following C++ code, given 'speed' is 50 and 'license' is true?

```
string result = "Not Bad";  
if (speed > 60)  
    if (license)  
        result = "Safe";  
else  
    result = "Under Speed Limit";
```

- ☐ Safe
- ☐ Not Bad;
- ☐ Under Speed Limit
- ☐ compiler error

☐ 4, 11

☐ 3, 11

Question 24

Not yet  
answered

Marked out of 1

Flag question

What will be the final value of 'sum' after running this code?

```
int sum = 0;
for (int i = 1; i <= 3; i++) {
    int j = 1;
    while (j <= i * 2) {
        sum += j;
        j += 2;
    }
}
```

☐ 16

☐ 14

☐ 20

☐ 22

**Question 1**

Not yet answered

Marked out of 1

Flag question

What will be printed by the following code:

```
string firstarray[] = {"three", "two", "four", "zero", "two", "one"};
int indexarray[5] = { 3, 4, 0, 2, 1 };
for (int i = 4; i >= 0; i--)
cout << firstarray[indexarray[i]]<<" ";
```

Select one:

- ☒ two four three two zero
- ☐ none of the above
- ☐ zero one two three four
- ☐ four three two zero
- ☐ three zero one two four two

**Question 2**

Not yet answered

Marked out of 1

Flag question

Suppose items is an array of 100 integers what will be the value of the variable funny at the end of following code:

```
int funny = items[0];
for (int i = 0; i < 100; i++) {
funny = items[ i ];
cout<<funny;
}
```

Select one:

- ☐ The maximum value stored in the array items
- ☐ None of these
- ☒ The last value stored in the array items
- ☐ The first value stored in the array items
- ☐ The minimum value stored in the array items

**Question 3**

Not yet answered

Marked out of 1

Flag question

If you declare an array double list[] = {3.4, 2.0, 3.5, 5.5}, list[1] is \_\_\_\_\_.

Select one:

- ☐ 5.5
- ☐ 2.0
- ☐ undefined
- ☐ 3.4
- ☐ 3.4

**Question 4**

Not yet answered

Marked out of 1

Flag question

Suppose matrix is a two dimensional array with three rows and three columns what will be the value of the variable funny at the end of the following code:

```
int funny = 0;
int k = 0;
for (int m = 0; m < 3; ++m)
funny = funny + matrix[k][m];
```

Select one:

- ☐ the sum of the first row in array matrix
- ☐ the sum of each row in array matrix
- ☐ the sum of each column in array matrix
- ☐ the sum of the first column in array matrix
- ☐ the sum of all elements in array matrix

Question 5

Not yet answered

Marked out of 1

Flag question

```
int x= 5, y=20;
if (x>15)
{
    if(y>15)
        // statement1 }
else
    // statement2
```

Select one:

- ☐ the code has an Error
- ☐ statement1
- ☐ statement2
- ☐ None of the statements

Question 6

Not yet answered

Marked out of 1

Flag question

What will be the elements stored in the array list at the end of the following code segment:

```
int list[5] = {0};
for(int i=0; i < 5; i++)
{
    if ( i == 3 )
        continue;
    list[i] = i;
}
```

Select one:

- ☐ 0 1 2 0 4
- ☐ 0 1 2
- ☐ 0
- ☐ The loop is infinite
- ☐ 0 1 0 3 4

Question 7

Not yet answered

Marked out of 1

Flag question

How many iterations will the following loop execute:

```
int x=10;
for (int y = 1; y <= x; y++)
{
    int data;
    cin>>data;
    cout>>data;
}
```

Select one:

- ☐ 0 iterations
- ☐ 5 iterations
- ☐ 10 iterations
- ☐ 9 iterations
- ☐ infinite

Question 8

Not yet answered

Marked out of 1

Flag question

What will be the function of the following method:

```
bool SomeMethod ( int[] list, int size) {  
    for(int i=0 ; i < size ; i++)  
        if (list[i]%2==0)  
            return false;  
    return true;  
}
```

Select one:

- ☐ The method has a compiler error
- ☐ The method returns true if the length of the array is odd
- ☐ The method returns true if all the elements of the array are odd
- ☐ The method returns true if all the elements of the array are even
- ☐ The method returns true if the first element of the array is even

Question 9

Not yet answered

Marked out of 1

Flag question

Which of the following code segments will find the maximum of three integer numbers

Select one:

- ☒

```
if ( a > b )  
    if( b > c )  
        max= a;  
    else  
        max=b;
```
- ☐

```
if(a>b&& a>c)  
    max=a;  
else  
    max=b;  
else  
    max=c;
```
- ☐

```
max=a;  
if(max < b)  
    max=b;  
else if (max < c)  
    max=c;
```
- ☐

```
max=a;  
if(max < b)  
    max=b;  
else  
    max=c;
```

Question 10

Not yet answered

Marked out of 1

Flag question

`pow(2.0, 3)` returns \_\_\_\_\_.

Select one:

- ☐ a. 1
- ☐ b. 8
- ☐ c. 0
- ☐ d. 9

Question 11

Not yet answered

Marked out of 1

Flag question

What is the following function designed to do?

```
void myFunction(char ch, int n) {  
    string s="";  
    for (int i = 0; i < n; i++)  
        s+=ch;  
    cout<<s ; }
```

Select one:

- ☐ prints a string with n random characters
- ☐ prints the character ch n of times
- ☐ prints an empty string
- ☐ prints the sum of all characters in a string that equals to ch
- ☐ prints the sum of all characters in a string

Question 12

Not yet answered

Marked out of 1

Flag question

What value will the following method return if the argument passed to it is 70 (i.e k=70)

```
string myMethd(int k)  
{  
    if(k>40)  
        return "pass";  
    else if(k<40)  
        return "Fail";  
}
```

Select one:

- ☐ empty string
- ☐ pass
- ☐ pass Fail
- ☐ The method has a compiler error
- ☐ Fail

Question 13

Not yet answered

Marked out of 1

Flag question

Which of the codes in the choices is equivalent to the following code: `boolean x; if(a>b) x = true; else x=false;`

Select one:

- ☐ `x= a>b;`
- ☐ `x= !(a<=b);`
- ☐ All of them
- ☐ `x=(a>b? false:true);`

Question 14

Not yet answered

Marked out of 1

Flag question

Two or more functions may have the same name, as long as their return value different.

Select one:

- ☐ true
- ☐ false

Question 15

Not yet answered

Marked out of 1

Flag question

To create an object for writing data to file test.txt, use \_\_\_\_\_.

Select one:

- ☐ a. ofstream output("test.txt");
- ☐ b. ofstream("test.txt");
- ☐ c. ifstream("test.txt");
- ☐ d. ifstream output("test.txt");

Question 16

Not yet answered

Marked out of 1

Flag question

Which of the following could be a correct header (not the body) for the following function that display a message a specified number of times.

Select one:

- ☐ void fun(int x, string str)
- ☐ int fun(string str)
- ☐ string fun(int x);
- ☐ string fun(string str, int x)

Question 17

Not yet answered

Marked out of 1

Flag question

Analyze the following code:

```
int data , s ;
cin>>data ;
s = data;
while (data != 0) {
if ( s > data )
s = data;
}
```

Suppose the user enter the following input: 40 12 67 8 9 2 18 40 98 13 14 21 8 11 33 9 0  
What will be the value of s at the end of the loop?

Select one:

- ☐ 0
- ☐ 98
- ☐ 15
- ☐ 40
- ☐ the loop is infinite
- ☐ 2

Question 18

Not yet answered

Marked out of 1

Flag question

What changes do you need to make in the following code snippet to display "Let us learn Java" exactly 10 times?

```
int i = 0;
while (i <= 10) {
cout<<"Let us learn Java";
i++;
}
```

Select one or more:

- ☐ int i = 1;
- ☐ while (i < 9)
- ☐ while (i < 11)
- ☐ while (i < 12)

Question 19

Not yet answered

Marked out of 1

Flag question

Do the following two statements in (I) and (II) result in the same value in sum?

(I):

```
for (int i = 0; i < 10; i++) {  
    sum += i;  
}
```

(II):

```
int i=0;  
for ( i < 10 ) {  
    i++;  
    sum += i;  
}
```

Select one:

- ☐ No
- ☐ Yes

Question 20

Not yet answered

Marked out of 1

Flag question

fill in the space in the following function header:

```
 myMethod(char ch, int n) {  
    if (n==0)  
        return;  
    for (int i = 0; i < n; i++)  
        cout<<ch;  
}
```

Question 21

Not yet answered

Marked out of 1

Flag question

How many iterations will the following loop execute:

```
for (int count = 1; count <= 10; count++)  
{ int data;  
  cin>>data;  
  cout<<data+10;  
  count--;  
}
```

Select one:

- ☐ 10 iterations
- ☐ 5 iterations
- ☐ infinite
- ☐ 9 iterations
- ☐ 0 iterations

Question 22

Not yet answered

Marked out of 1

Flag question

Which of these data type requires the most amount of memory?

Select one:

- ☐ a. double
- ☐ b. int
- ☐ c. long
- ☐ d. short

Question **23**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

What is the output of the following code snippet?

```
int a = 25;  
if(a <= 25)  
    cout<<" one";  
if(a < 15)  
    cout<<" two";  
else  
    cout<<" three";
```

Select one:

- ☐ a. one two
- ☐ b. one three
- ☐ c. one
- ☐ d. Compilation error

Question **24**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which of the following sequence of statements is equivalent to the code:

```
sum+=x++;
```

Select one:

- ☐ x=x+1; sum=sum+x;
- ☐ none of them
- ☐ sum=sum+x; x=x+1;
- ☐ sum=(x+1) ; x=x+1;
- ☐ sum=x; x=x+1;

Question **25**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

What will the following function do?

```
int myFunction(int numbers[], int size) {  
    int num = numbers[0];  
    int k=0;  
    for (int i=0; i<size; i++)  
        if (numbers[i] > num) {  
            num = numbers[i];  
            k=i;  
        }  
    return k;  
}
```

Select one:

- ☐ find the index of the minimum value in the array
- ☐ find the minimum value stored in the array
- ☐ find the index of the maximum value in the array
- ☐ find the maximum value stored in the array
- ☐ sort the elements of the array in ascending order
- ☐ sort the elements of the array in descending order

Question **26**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which code line could possibly "call" this function?

```
int somfunction ( int count, double number)  
{ ...  
}
```

Select one:

- ☐ int value = Somfunction(10, 3.0);
- ☐ somefunction(10, 3.0);
- ☐ double value = somefunction(10.2, 3.0);
- ☐ int value = somefunction(10.2, 3.0);

Question **27**

Not yet  
answered

Marked out of  
1

🚩 Flag  
question

Which code line could possibly "call" this function?

```
char somefunction ( bool count, string s)  
{ ...  
}
```

Select one:

- ☐ somefunction(true, "Name");
- ☐ char value = somefunction( A>C , "3.0");
- ☐ string value = somefunction( 1 , "Name");
- ☐ bool value = somefunction( 0 , "3.0");

Question 28

Not yet answered

Marked out of 1

Flag question

The \_\_\_\_\_ function returns a raised to the power of b.

Select one:

- ☐ a. pow(a, b)
- ☐ b. exponent(a, b)
- ☐ c. power(a, b)
- ☐ d. pow(b, a)

Question 29

Not yet answered

Marked out of 1

Flag question

fill in the space **by inspecting what will be the parameters** in the following method definition:

```
char myMethod() {  
    if(str.size()>=n)  
        return s[n] ;  
    return 'f'  
}
```

Question 30

Not yet answered

Marked out of 1

Flag question

What will be the value of **num** after executing the **fourth** iteration of the following loop ( draw tracing table then answer)

```
for (int k = 2, num=1; k < 20; k++) {  
    if (num % 2 == 1)  
        num+=k;  
    else  
        num++;  
}
```

Select one:

- ☐ 10
- ☐ 4
- ☐ 12
- ☐ 11
- ☐ 21

Question 31

Not yet answered

Marked out of 1

Flag question

Which of the following lines is not a C++ comment?

Select one:

- ☐ a. // comments
- ☐ b. /\* comments \*/
- ☐ c. /\*\* comments \*/
- ☐ d. \*\* comments \*\*

Question 32

Not yet answered

Marked out of 1

Flag question

Which statements will be executed by the following code?

```
int i = 1, j = -1;
switch (i)
{
    case 1: //statement1
    case 2: //statement2
    case 3: //statement3;
}
```

Select one:

- ☐ none of the statements.
- ☐ statement2 and statement3.
- ☐ all of the statements.
- ☐ statement1
- ☐ statement3
- ☐ statement2

Question 33

Not yet answered

Marked out of 1

Flag question

What will be the elements of the array list after returning from the following method:

```
void myFunction(int list[]){
    int size=7;
    list[0] = 0;
    list[1] = 1;
    for(int i = 2; i<7; i++)
        list[i] = list[1]+list[i-2];
}
```

Select one:

- ☐ None of these
- ☐ 0 1 2 3 4 5 6
- ☐ 0 1 3 5 7 9 11
- ☐ 0 1 1 2 3 5 8
- ☐ 0 1 1 2 2 3 3

Question 34

Not yet answered

Marked out of 1

Flag question

What will be the elements of the array returned by the following method:

```
void funcA(int list[] ){  
    int size=4;  
    int s=0;  
    for (int k = 0; k < size; k++) {  
        int i = 0;  
        do {  
            i++;  
            s++; } while (i < 3);  
        list[k]=s;  
    }  
}
```

Select one:

- ☐ 9 18 27 36
- ☐ 6 12 18 24
- ☐ none of the choices
- ☐ 4 8 12 16
- ☐ 3 6 9 12

Question 35

Not yet answered

Marked out of 1

Flag question

When you declare an array using the following statement inside a function, the element values are automatically initialized to 0. `int matrix[5][5];`

Select one:

- ☐ a. True
- ☐ b. False