

**Question One: Choose the correct output of each of the following:****(50 Marks)**

1) #include <iostream> using namespace std; int main() { cout << 5 + 7 * 2; return 0; }	a) 19	b) 24	c) None of the above.
2) #include <iostream> using namespace std; int main() { int a = 5; cout << ++a; return 0; }	a) 5	b) 6	c) None of the above.
3) #include <iostream> using namespace std; int main() { int ans = 27; ans += 10; cout << ans; return 0; }	a) 27	b) 37	c) None of the above.
4) #include <iostream> using namespace std; int main() { cout << 88 % 10; return 0; }	a) 88	b) 10	c) 8
5) #include <iostream> using namespace std; int main() { cout << "Welcome to C++ /n"; return 0; }	a) Welcome to C++ /n	b) Welcome to C++	c) None of the above.
6) #include <iostream> using namespace std; int main() { int num[5]; num[2]=75; return 0; }	a) put in the second component of the array num 75	b) put in the third component of the array num 75	c) None of the above.
7) #include <iostream> using namespace std; double max(double x, double y) { if (x >= y) return x; return y; } int main() { cout << max(5, 10); return 0; }	a) 5	b) 10	c) None of the above.

Question Two: Choose what must be corrected for each of the following: اختر ما يجب تصحيحه في كل نقطة فرعية: (12 Marks)

4) <pre>int print (int n) { for (int i =1; i <= n; i++) cout << "/" << " " ; }</pre>	a) <pre>int print</pre>	b) <pre>cout << "/" << " " ;</pre>	c) None of the above.
5) <pre>#include <iostream> using namespace std; int main() { // "C++"; /* "C++"; */ return 0; }</pre>	a) <pre>// "C++";</pre>	b) <pre>/* "C++"; */</pre>	c) None of the above.
6) <pre>#include <iostream> using namespace std; const float TAX = 2.54F; int main() { double a; cout << "enter your salary "; cin << a; a *= TAX; cout << a; return 0; }</pre>	a) <pre>cin << a;</pre>	b) <pre>const float TAX = 2.54F;</pre>	c) None of the above.

Question Three: Choose the correction for the error in each of the following: اختر التصحيح للخطأ الموجود في كل نقطة: (11 Marks)

17) <pre>int n[10] = {1, 3, 5, , 9};</pre>	a) <pre>int n[10] = {1, 3, 5, 9};</pre>	b) <pre>int n[10] = {1, 3, 5, 0, 9};</pre>	c) None of the above.
18) <pre>#include <iostream> int main() { cout << "Welcome to C++"; return 0; }</pre>	a) <pre>std..cout</pre>	b) <pre>std::cout</pre>	c) None of the above.
19) <pre>struct empType { int age double salary }</pre>	a) <pre>struct empType { int age; double salary; }</pre>	b) <pre>struct empType { int age; double salary; };</pre>	c) None of the above.
20) <pre>#include <iostream> using namespace std; int main() { double u ; v ; u = 2.0; v = 3.0; cout << u * v ; cout << "endl"; return 0; }</pre>	a) <pre>double u, v;</pre>	b) <pre>cout << endl;</pre>	c) All of the above.

8) #include <iostream> using namespace std; int main() { int legalAge; int age = 18; legalAge = (age >= 18); cout << legalAge ; return 0; }	a) 0	b) 1	c) 18
9) #include <iostream> using namespace std; int main() { char grade = 'C'; switch (grade) { case 'A': cout << "4.0"; case 'B': cout << "3.0"; case 'C': cout << "2.0 "; case 'D': cout << "1.0 "; case 'F': cout << "0.0 "; default: cout << "invalid"; } return 0; }	a) 2.0.	b) 2.0 1.0 0.0 invalid	c) None of the above.
10) #include <iostream> using namespace std; int main() { cout << 15 / 3 + 2 ; return 0; }	a) 3	b) 5	c) 7
11) #include <iostream> using namespace std; int main() { int x = 2; x *= 10; cout << x ; return 0; }	a) 2	b) 10	c) 20
12) #include <iostream> using namespace std; int main() { double gpa = 3.7; if (gpa >= 2.0) { if(gpa >= 3.9) cout << "Honor list"; } else cout << "gpa below requirements"; return 0; }	a) Honor list	b) gpa below requirements	c) None of the above.
13) #include <iostream> using namespace std; double area (double a, double b) { return a * b; } int main() { cout << area (2, 6); return 0; }	a) 2	b) 6	c) 12

Question Two: Choose what must be corrected for each of the following: (12 Marks) اختار ما يجب تصحيحه في كل نقطة فرعية:

4) <pre>int print (int n) { for (int i =1; i <= n; i++) cout << "/" << " " ; }</pre>	a) <pre>int print</pre>	b) <pre>cout << "/" << " " ;</pre>	c) None of the above.
5) <pre>#include <iostream> using namespace std; int main() { // "C++"; /* "C++"; */ return 0; }</pre>	a) <pre>// "C++";</pre>	b) <pre>/* "C++"; */</pre>	c) None of the above.
6) <pre>#include <iostream> using namespace std; const float TAX = 2.54F; int main() { double a; cout << "enter your salary "; cin << a; a *= TAX; cout << a; return 0; }</pre>	a) <pre>cin << a;</pre>	b) <pre>const float TAX = 2.54F;</pre>	c) None of the above.

Question Three: Choose the correction for the error in each of the following: (11 Marks) اختار التصحيح للخطأ الموجود في كل نقطة:

17) <pre>int n[10] = {1, 3, 5, , 9};</pre>	a) <pre>int n[10] = {1, 3, 5, 9};</pre>	b) <pre>int n[10] = {1, 3, 5, 0, 9};</pre>	c) None of the above.
18) <pre>#include <iostream> int main() { cout << "Welcome to C++"; return 0; }</pre>	a) <pre>std..cout</pre>	b) <pre>std::cout</pre>	c) None of the above.
19) <pre>struct empType { int age double salary }</pre>	a) <pre>struct empType { int age; double salary; }</pre>	b) <pre>struct empType { int age; double salary; };</pre>	c) None of the above.
20) <pre>#include <iostream> using namespace std; int main() { double u ; v ; u = 2.0; v = 3.0; cout << u * v ; cout << "endl"; return 0; }</pre>	a) <pre>double u, v;</pre>	b) <pre>cout << endl;</pre>	c) All of the above.

8) #include <iostream>
using namespace std;
int main() {
int legalAge;
int age = 18;
legalAge = (age >= 18);
cout << legalAge; return 0; }

a) 0

b) 1

c) 18

True = 1
False = 0

9) #include <iostream>
using namespace std;
int main() {
char grade = 'C';
switch (grade) {
case 'A':
cout << "4.0";
case 'B':
cout << "3.0";
case 'C':
cout << "2.0";
case 'D':
cout << "1.0";
case 'F':
cout << "0.0";
default:
cout << "invalid"; } return 0; }

a) 2.0

b) 2.0 1.0 0.0 invalid

c) None of the above.

لا يوجد break

10) #include <iostream>
using namespace std;
int main() {
cout << 15 / 3 + 2; return 0; }

a) 3

b) 5

c) 7

11) #include <iostream>
using namespace std;
int main() {
int x = 2;
x *= 10;
cout << x; return 0; }

a) 2

b) 10

c) 20

12) #include <iostream>
using namespace std;
int main() {
double gpa = 3.7;
if (gpa >= 2.0)
{ if (gpa >= 3.9) cout << "Honor list";
else cout << "gpa below requirements";
return 0; }

a) Honor list

b) gpa below requirements

c) None of the above.

مستحق هبط ناتج

13) #include <iostream>
using namespace std;
double area (double a, double b)
{ return a * b; }
int main() {
cout << area (2, 6); return 0; }

a) 2

b) 6

c) 12

Question Two: Choose what must be corrected for each of the following: (12 Marks) اختر ما يجب تصحيحه في كل نقطة فرعية:

14) <pre>int print (int n) { for (int i = 1; i <= n; i++) cout << "/" << " "; }</pre>	a) <u>int print</u>	b) <code>cout << "/" << " " ;</code>	c) None of the above.
15) <pre>#include <iostream> using namespace std; int main() { // "C++"; /* "C++"; */ return 0; }</pre>	a) <u>// "C++";</u> <i>9.7.2020</i>	b) <code>/* "C++"; */</code>	c) None of the above.
16) <pre>#include <iostream> using namespace std; const float TAX = 2.54F; int main() { double a; cout << "enter your salary "; cin << a; a *= TAX; cout << a; return 0; }</pre>	a) <u>cin << a;</u>	b) <code>const float TAX = 2.54F;</code>	c) None of the above.

Question Three: Choose the correction for the error in each of the following: (11 Marks) اختر التصحيح للخطأ الموجود في كل نقطة:

17) <pre>int n[10] = {1, 3, 5, , 9};</pre>	a) <code>int n[10] = {1, 3, 5, 9};</code>	b) <u><code>int n[10] = {1, 3, 5, 0, 9};</code></u>	c) None of the above.
18) <pre>#include <iostream> int main() { cout << "Welcome to C++"; return 0; }</pre>	a) <code>std..cout</code>	b) <u><code>std::cout</code></u>	c) None of the above.
19) <pre>struct empType { int age double salary }</pre>	a) <pre>struct empType { int age; double salary; }</pre>	b) <u><pre>struct empType { int age; double salary; };</pre></u>	c) None of the above.
20) <pre>#include <iostream> using namespace std; int main() { double u ; v ; u = 2.0; v = 3.0; cout << u * v ; cout << "endl"; return 0; }</pre>	a) <u><code>double u, v;</code></u>	b) <code>cout << endl;</code>	c) All of the above.



Cairo University

Cairo University - Faculty of Graduate Studies for Statistical Research

Department: Computer sciences

Academic Year: 1

Date: 25-3-2021

Semester: one

Level: Diploma



Course Title: Computer Programming (1)

Course code: CSS01

Time: 1.5 Hours

Exam marks: 75

Exam Sheets: 3

Question One: Choose the correct output of each of the following:

(52 Marks)

1) #include <iostream> using namespace std; int main() { cout << " C++/n"; cout << " language"; return 0; }	a) C++/n language	b) C++ language	c) None of the above.
2) #include <iostream> using namespace std; int main() { int arr[20]; arr[0]=5; return 0; }	a) put in the first element of the array arr 5	b) put in the last element of the array arr 5	c) None of the above.
3) #include <iostream> using namespace std; int main() { int i = 20; while (i < 20) { cout << i << " "; i = i + 5; } cout << "***"; return 0; }	a) **	b) 0 5 10 15 **	c) None of the above.
4) #include <iostream> using namespace std; int main() { int x = 5; int y = 2; int z = x / y; cout << z; return 0; }	a) 2	b) 2.5	c) None of the above.
5) #include <iostream> using namespace std; int ged (int m, int n) { if (n == 0) return m; else return ged (n, m % n); } int main() { cout << ged (4,8); return 0; }	a) 4	b) 8	c) None of the above.
6) #include <iostream> using namespace std; int main() { int a = 27; int *p = &a; *p = 37; cout << a; return 0; }	a) 27	b) 37	c) None of the above.
7) #include <iostream> using namespace std; int main() { int x = 5; cout << ++x; return 0; }	a) 5	b) 6	c) None of the above.



Question One: Choose the correct output of each of the following:

(52 Marks)

1) #include <iostream> using namespace std; int main() { cout << " C++/n"; cout << " language"; return 0; }	a) C++/n language	b) C++ language	c) None of the above.
2) #include <iostream> using namespace std; int main() { int arr[20]; arr[0]=5; return 0; }	a) put in the first element of the array arr 5	b) put in the last element of the array arr 5	c) None of the above.
3) #include <iostream> using namespace std; int main() { int i = 20; while (i < 20) { cout << i << " "; i = i + 5; } cout << "***"; return 0; }	a) **	b) 0 5 10 15 **	c) None of the above.
4) #include <iostream> using namespace std; int main() { int x = 5; int y = 2; int z = x / y; cout << z; return 0; }	a) 2	b) 2.5	c) None of the above.
5) #include <iostream> using namespace std; int gcd (int m, int n) { if (n == 0) return m; else return gcd (n, m % n); } int main() { cout << gcd (4,8); return 0; }	a) 4	b) 8	c) None of the above.
6) #include <iostream> using namespace std; int main() { int a = 27; int *p = &a; *p = 37; cout << a; return 0; }	a) 27	b) 37	c) None of the above.
7) #include <iostream> using namespace std; int main() { int x = 5; cout << ++x; return 0; }	a) 5	b) 6	c) None of the above.

8) #include <iostream> using namespace std; int main() { int x = 25; int *p = &x; *p = 55; cout << x; return 0; }	a) 25	b) 55	c) None of the above.
9) #include <iostream> using namespace std; int main() { int i = 5; if (i < 10) cout << "Hello"; cout << " There"; return 0; }	a) Hello	b) Hello There	c) None of the above.
10) #include <iostream> using namespace std; int main() { int i = 0; while (i <= 3) { i = i + 1; cout << i; } return 0; }	a) 1234	b) 0123	c) None of the above.
11) #include <iostream> using namespace std; int main() { for (int i = 3; i >= 1; i--) cout << i; cout << "the for loop"; return 0; }	a) 321	b) 321 the for loop	c) None of the above.

Question Two: Choose the best answer for each of the following:

(25 Mark)

12) #include <iostream> using namespace std; int main() { double x; cout << "enter your salary "; cin << x; cout << x * 0.25 ; endl; return 0; }	a) cin << s;	b) ; endl;	c) All of the above.
The error in this program is:			
13) #include <iostream> using namespace std; const int MIN ; int main() { // "a simple program" return 0; }	a) const int MIN ;	b) // "a simple program"	c) All of the above.
The error in this program is:			

Question Two: Choose what must be corrected for each of the following: (12 Marks) اختر ما يجب تصحيحه في كل نقطة فرعية:

4) <pre>int print (int n) { for (int i=1; i <= n; i++) cout << "/" << " " ; }</pre>	a) <pre>int print</pre>	b) <pre>cout << "/" << " " ;</pre>	c) None of the above.
5) <pre>#include <iostream> using namespace std; int main() { // "C++"; /* "C++"; */ return 0; }</pre>	a) <pre>// "C++";</pre>	b) <pre>/* "C++"; */</pre>	c) None of the above.
6) <pre>#include <iostream> using namespace std; const float TAX = 2.54F; int main() { double a; cout << "enter your salary "; cin << a; a *= TAX; cout << a; return 0; }</pre>	a) <pre>cin << a;</pre>	b) <pre>const float TAX = 2.54F;</pre>	c) None of the above.

Question Three: Choose the correction for the error in each of the following: (11 Marks) اختر التصحيح للخطأ الموجود في كل نقطة:

17) <pre>int n[10] = {1, 3, 5, , 9};</pre>	a) <pre>int n[10] = {1, 3, 5, 9};</pre>	b) <pre>int n[10] = {1, 3, 5, 0, 9};</pre>	c) None of the above.
18) <pre>#include <iostream> int main() { cout << "Welcome to C++" ; return 0; }</pre>	a) <pre>std..cout</pre>	b) <pre>std::cout</pre>	c) None of the above.
19) <pre>struct empType { int age double salary }</pre>	a) <pre>struct empType { int age; double salary; }</pre>	b) <pre>struct empType { int age; double salary; };</pre>	c) None of the above.
20) <pre>#include <iostream> using namespace std; int main() { double u ; v ; u = 2.0; v = 3.0; cout << u * v ; cout << "endl"; return 0; }</pre>	a) <pre>double u, v;</pre>	b) <pre>cout << endl;</pre>	c) All of the above.

14) #include <iostream> int main() { std::cout << "Welcome to C++"; return 0; } The error in this program is:	a) std	b) ..	c) None of the above.
15) #include <iostream> using namespace std; int main() { double x; y; x = 4.2; y = 3.0; cout << x + y; return 0; } The error in this program is:	a) double x; y;	b) y = 3.0;	c) cout << x + y ;
16) void print(int n) { for (int i = 1; i <= n; i++) cout << " * "; return n; } The error in this function is:	a) return n;	b) void	c) None of the above.
17) #include <iostream> using namespace std; int main() { /* This is deleted according to my boss. cout << "C++ is difficult"; * return 0; } The error in this program is:	a) the comment symbols	b) cout << "C++ is difficult";	c) None of the above.
18) #include <iostream> using namespace std; int main() { int list[10] = {0}; for (int i = 1; i < 10; i++) cout << list[i]; return 0; } The error in this program is:	a) int i = 1	b) i < 10	c) None of the above.
19) #include <iostream> using namespace std; int main() { int total = 3 * 50; if (total = 100) cout << total; return 0; } The error in this program is:	a) total = 100	b) int total = 3 * 50;	c) None of the above.

Question Three: The assignments and practical work:

(25 Marks)



Question One: Choose the correct output of each of the following:

(52 Marks)

1) #include <iostream> using namespace std; int main() { cout << "C++/n"; cout << " language"; return 0; }	a) C++/n language	b) C++ language	c) None of the above.
2) #include <iostream> using namespace std; int main() { int arr[20]; arr[0]=5; return 0; }	a) put in the first element of the array arr 5	b) put in the last element of the array arr 5	c) None of the above.
3) #include <iostream> using namespace std; int main() { int i = 20; while (i < 20) { cout << i << " "; i = i + 5; } cout << "***"; return 0; }	a) **	b) 0 5 10 15 **	c) None of the above.
4) #include <iostream> using namespace std; int main() { int x = 5; int y = 2; int z = x / y; cout << z; return 0; }	a) 2	b) 2.5	c) None of the above.
5) #include <iostream> using namespace std; int ged (int m, int n) { if (n == 0) return m; else return ged (n, m % n); } int main() { cout << ged (4,8); return 0; }	a) 4	b) 8	c) None of the above.
6) #include <iostream> using namespace std; int main() { int a = 27; int *p = &a; *p = 37; cout << a; return 0; }	a) 27	b) 37	c) None of the above.
7) #include <iostream> using namespace std; int main() { int x = 5; return 0; }	a) 5	b) 6	c) None of the above.

<pre> 8) #include <iostream> using namespace std; int main() { int legalAge; int age = 18; legalAge = (age >= 18); cout << legalAge; return 0; } </pre>	a) 0	b) 1	c) 18
<pre> 9) #include <iostream> using namespace std; int main() { char grade = 'C'; switch (grade) { case 'A': cout << "4.0"; case 'B': cout << "3.0"; case 'C': cout << "2.0"; case 'D': cout << "1.0"; case 'F': cout << "0.0"; default: cout << "invalid"; } return 0; } </pre>	a) 2.0	b) 2.0 1.0 0.0 invalid	c) None of the above
<pre> 10) #include <iostream> using namespace std; int main() { cout << 15 / 3 + 2; return 0; } </pre>	a) 3	b) 5	c) 7
<pre> 11) #include <iostream> using namespace std; int main() { int x = 2; x *= 10; cout << x; return 0; } </pre>	a) 2	b) 10	c) 20
<pre> 12) #include <iostream> using namespace std; int main() { double gpa = 3.7; if (gpa >= 2.0) if (gpa >= 3.9) cout << "Honor list"; else cout << "gpa below requirements"; return 0; } </pre>	a) Honor list	b) gpa below requirements	c) None of the above
<pre> 13) #include <iostream> using namespace std; double area (double a, double b) { return 0; } </pre>	a) 2	b) 6	c) 12


```

1) #include <iostream>
using namespace std;
int main() {
    int legalAge;
    int age = 18;
    legalAge = (age >= 18);
    cout << legalAge;
    return 0; }

```

a) 0

b) 1

c) 18

```

2) #include <iostream>
using namespace std;
int main() {
    char grade = 'C';
    switch (grade) {
        case 'A':
            cout << "4.0";
        case 'B':
            cout << "3.0";
        case 'C':
            cout << "2.0";
        case 'D':
            cout << "1.0";
        case 'F':
            cout << "0.0";
        default:
            cout << "invalid";
    }
    return 0; }

```

a) 2.0

b) 2 0 1 0 0 0 invalid

c) None of the above

```

3) #include <iostream>
using namespace std;
int main() {
    cout << 15 / 3 + 2;
    return 0; }

```

a) 3

b) 5

c) 7

```

4) #include <iostream>
using namespace std;
int main() {
    int x = 2;
    x * 5 = 10;
    cout << x;
    return 0; }

```

a) 2

b) 10

c) 20

```

5) #include <iostream>
using namespace std;
int main() {
    double gpa = 3.7;
    if (gpa >= 2.0) {
        if (gpa >= 3.0) cout << "Honor list";
        else cout << "gpa below requirements";
    }
    return 0; }

```

a) Honor list

b) gpa below requirements

c) None of the above

```

6) #include <iostream>
using namespace std;
double area (double a, double b)
{
    return 0.5 * a * b;
}

```

a) 2

b) 6

c) 12