



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: CS503

Time: 1.5 Hours

Exam marks: 75

Exam Sheets: 3

(52 Marks)

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

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.



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1) #include <iostream> using namespace std; int main() { cout << " C++/n"; cout << " language"; return 0; }	a) <u>C++/n language</u>	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 <u>arr 5</u>	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) <u>**</u>	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) <u>2</u>	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) <u>4</u>	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) <u>27</u>	b) 37	c) None of the above.
7) #include <iostream> using namespace std; int main() { int x = 5; cout << ++x ; return 0; }	a) <u>5</u>	b) 6	c) None of the above.



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

14) <pre>int print ( int n) { for (int i = 1; i &lt;= n; i++) cout &lt;&lt; "/" &lt;&lt; " "; }</pre>	a) <u>int print</u>	b) <code>cout &lt;&lt; "/" &lt;&lt; " ";</code>	c) None of the above.
15) <pre>#include &lt;iostream&gt; using namespace std; int main() { // "C++"; /* "C++"; */ return 0; }</pre>	a) <code>// "C++";</code>	b) <code>/* "C++"; */</code>	c) None of the above.
16) <pre>#include &lt;iostream&gt; using namespace std; const float TAX = 2.54F; int main() { double a; cout &lt;&lt; "enter your salary "; cin &lt;&lt; a; a *= TAX; cout &lt;&lt; a; return 0; }</pre>	a) <code>cin &lt;&lt; a;</code>	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) اختار 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) <code>int n[10] = { 1, 3, 5, 0, 9};</code>	c) None of the above.
18) <pre>#include &lt;iostream&gt; int main() { cout &lt;&lt; "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) <pre>struct empType { int age; double salary; };</pre>	c) None of the above.
20) <pre>#include &lt;iostream&gt; using namespace std; int main() { double u ; v ; u = 2.0; v = 3.0; cout &lt;&lt; u * v ; cout &lt;&lt; "endl"; return 0; }</pre>	a) <code>double u, v;</code>	b) <code>cout &lt;&lt; endl;</code>	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

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