FINAL EXAMINATION - Part D

Seneca | SCHOOL OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

TERM	COURSE NAME	COURSE CODE	VERSION
Summer 2020	Object-Oriented Software Development using C++	OOP345	A

Name	
Student Number	
Section	

PROFESSORS: Hossein Pourmodheji, Mufleh Al-Shatnawi, Asam Gulaid

SPECIAL INSTRUCTIONS:

Test Component	Availability	Time Limit
Part A and B	Aug 11th, 8 AM to Aug 12th, 8 AM	No Time Limit
Part C	Aug 11th, 8 AM to Aug 12th, 8 AM	3 hours
Part D	Aug 12th, 8 AM to Aug 13th, 8 AM	3 hours
Part E	Aug 13th, 8 AM to Aug 14th, 8 AM	4 hours

- For Part C, D and E, 80% of the mark is dedicated to the coding part, and 20% is dedicated to the explanation.

SENECA'S ACADEMIC HONESTY POLICY
As a Seneca student, you must conduct yourself in an honest and trustworthy manner in all aspects of your academic career. A dishonest attempt to obtain an academic advantage is considered an offense, and will not be tolerated by the College.

APPROVED BY:
Kathy Dumanski, Chair, School of SDDS

Part D: (20%)

Design and implement a function named `contains(...)` that receives unmodifiable references to two STL lists containing integers. The function shall return true if there is at least one element that can be found in both lists. Otherwise, the function shall return false.

Deliverables:

1. Your implementation should not include any STL algorithms—use iterators to traverse the lists.
2. **Submit the working program.**
3. **Submit screen capture of the test results.**

```
#include <list>
#include <iostream>

//TODO: complete this function
__________ contains( ____________________________, ____________________________ )
{


}

// program showing sample usage
int main() {
  std::list<int> l1;   std::list<int> l2;
  l1.push_back(1);     l2.push_back(0);
  l1.push_back(2);     l2.push_back(2);

  // expected output: true
  std::cout << (contains(l1, l2) ? "true" : "false");

  std::list<int> l3;
  l3.push_back(5);
  l3.push_back(6);

  // expected output: false
  std::cout << (contains(l1, l3) ? "true" : "false");
}
```