C++ Evaluation

Set 1

Q1)

Code:

#include <iostream>

using namespace std;

class Operation

{

int a,b;

public:

Operation(int a)

{

this->a=a;

//this->b=b;

}

Operation()

{

a=0;

//b=0;

}

Operation operator + (Operation o1)

{

//Operation o1,o2;

o1.a=o1.a+a;

return o1;

}

Operation operator - (Operation o1)

{

//Operation o1,o2;

o1.a=o1.a-a;

return o1;

}

Operation operator \* (Operation o1)

{

//Operation o1,o2;

o1.a=o1.a\*a;

return o1;

}

Operation operator / (Operation o1)

{

//Operation o1,o2;

o1.a=o1.a/a;

return o1;

}

int print()

{

return a;

}

};

int main()

{

int a,b;

cout<<"Enter the first no: ";

cin>>a;

cout<<"Enter the second no: ";

cin>>b;

Operation o1(a);

Operation o2(b);

Operation o3,o4,o5,o6;

o3=o2+o1;

o4=o2-o1;

o5=o2\*o1;

o6=o2/o1;

cout<<"The sum is: "<<o3.print()<<endl;

cout<<"The difference is: "<<o4.print()<<endl;

cout<<"The product is: "<<o5.print()<<endl;

cout<<"The result is: "<<o6.print()<<endl;

}

Output:

Enter the first no: 36

Enter the second no: 9

The sum is: 45

The difference is: 27

The product is: 324

The result is: 4

**...Program finished with exit code 0**

**Press ENTER to exit console.**

Q2)

Code:

#include <iostream>

#include <string>

using namespace std;

class Person

{

string mName;

string mBirthDate;

string mSex;

public:

void getName()

{

cout<<"Enter your name: ";

cin>>mName;

}

void getBirthDate()

{

cout<<"Enter your birthdate: ";

cin>>mBirthDate;

}

void getSex()

{

cout<<"Enter your sex: ";

cin>>mSex;

}

};

class Student: virtual public Person

{

public:

void getAddress()

{

cout<<"He/She lives in Geeta Colony."<<endl;

}

void getDepartment()

{

cout<<"He/She is from CSE Department."<<endl;

}

};

class Teacher: virtual public Person

{

public:

void getRank()

{

cout<<"He/She is an Associate Professor."<<endl;

}

void getDepartment()

{

cout<<"He/She is from CSE Department."<<endl;

}

void getCourseInfo()

{

cout<<"He/she is teaching OOPS Using C++."<<endl;

}

};

class GradTeachingFellow: public Student, public Teacher

{

public:

void getSupervisor()

{

Person::getName();

Person::getBirthDate();

Person::getSex();

Student::getAddress();

Student::getDepartment();

Teacher::getRank();

Teacher::getDepartment();

Teacher::getCourseInfo();

cout<<"He/She is a supervisor."<<endl;

}

};

int main()

{

GradTeachingFellow a;

a.getSupervisor();

}

Output:

Enter your name: Shaina

Enter your birthdate: 12/07/2001

Enter your sex: Female

He/She lives in Geeta Colony

He/She is from CSE Department

He/She is an Associate Professor

He/She is from CSE Department

He/she is teaching OOPS Usinfg C++

He/She is a supervisor

**...Program finished with exit code 0**

**Press ENTER to exit console.**

Alternante Method :

Code :

#include <iostream>

#include <string>

using namespace std;

class Person

{

string mName;

string mBirthDate;

string mSex;

public:

void getName()

{

cout<<"Enter your name: ";

getline(cin,mName);

}

void getBirthDate()

{

cout<<"Enter your birthdate: ";

getline(cin,mBirthDate);

}

void getSex()

{

cout<<"Enter your sex: ";

getline(cin,mSex);

}

};

class Student

{

public:

Person p;

void getAddress()

{

p.getName();

p.getBirthDate();

p.getSex();

cout<<"He/She lives in Geeta Colony."<<endl;

}

void getDepartment()

{

cout<<"He/She is from CSE Department."<<endl;

}

};

class Teacher

{

public:

Person p;

void getRank()

{

p.getName();

p.getBirthDate();

p.getSex();

cout<<"He/She is an Associate Professor."<<endl;

}

void getDepartment()

{

cout<<"He/She is from CSE Department."<<endl;

}

void getCourseInfo()

{

cout<<"He/she is teaching OOPS Using C++."<<endl;

}

};

class GradTeachingFellow

{

public:

Student s;

Teacher t;

void getSupervisor()

{

s.getAddress();

s.getDepartment();

t.getRank();

t.getDepartment();

t.getCourseInfo();

cout<<"He/She is a supervisor."<<endl;

}

};

int main()

{

GradTeachingFellow a;

a.getSupervisor();

}

Output :

Enter your name: Falak Ali Khan

Enter your birthdate: 19 July 2001

Enter your sex: Female

He/She lives in Geeta Colony.

He/She is from CSE Department.

Enter your name: Dr Mona Patania

Enter your birthdate: 14 August 1973

Enter your sex: Female

He/She is an Associate Professor.

He/She is from CSE Department.

He/she is teaching OOPS Using C++.

He/She is a supervisor.

**...Program finished with exit code 0**

**Press ENTER to exit console.**

Set 2

Q1)

Code:

Output:

Q2)

Code:

Output: