Question 1: Consider the following piece of code. Write down the output in the space provided below (on next page) when the program in main.cc is executed.

```cpp
// test.h
class CtorDtor
{
  private:
    int num;

  public:
    CtorDtor(int);
    ~CtorDtor();
};

// test.cc
#include <iostream>
#include "test.h"
using namespace std;

CtorDtor:: CtorDtor(int a)
{
  this->num = a;
  cout << "In ctor" << a << endl;
}

CtorDtor::~ CtorDtor()
{
  cout << "In dtor" << num << endl;
}

// main.cc
#include <iostream>
#include "test.h"
using namespace std;

CtorDtor a(1);

void create()
{
  CtorDtor b(2);
  static CtorDtor c(3);
  CtorDtor d(4);
}

int main()
{
  CtorDtor e(5);
  static CtorDtor f(6);
  create();
  CtorDtor g(7);
  return 0;
}
Question 2: We know that compiler provides us with a default constructor. State as many reasons as possible due to which you will need to write a constructor of your own.
Answer:

Question 3: State all the reasons why you would want to provide an initialization list?
Answer: