## Assignment #6

**Question #1**

1. cin >> b;
2. cin >> c;
3. cin >>a
4. while (a< (c+b))

{

1. if (c < 3)

{

1. b = b – c;
2. c++;
3. cin>>b;
4. cin >>c
5. c++;

}

1. a++

}

1. if (c >b )

{

1. b++;

}

1. cout << c;
2. cout <<b;
3. Create a static PDG and compute a static slice for S(c,14)
4. Compute a static forward slice for S(b,8)

Question #2

1. cin >> b;
2. cin >> c;
3. cin >>a
4. if (c < 3)

{

5. if (b < c)

{

6. c=2;

}

1. else

{

1. b = b – c;
2. c++;
3. cin>>b;
4. cin >>c

}

1. c++;

}

1. a++
2. if (c >b )

{

1. b++;

}

1. cout << c;
2. cout <<b;
3. Create a dynamic PDG and compute a dynamic backward slice for S(c,16,last execution position), given the following input

Initial input: a= 1; c=1; b = 2 (and then afterwards, the input values for b=0 and c =2)

1. compute dynamic forward slices for the given the following input:

initial input: a=1; c=1; b = 2 (and then afterwards, the input values for b=0 and c =2)

**Question #3**

Given the following scenario – a company tries to migrate their legacy Cobol application (using a hierarchical file system) to C# and a relational database. What are some of the key challenges in such software migration ?

What are some of the migration techniques which could be used?

**Q#4 Given is the following problem. Perform**

1. Statement testing
2. Branch testing
3. Multiple condition testing

Provide test cases and clearly indicated the coverage.

1. cin >> b;
2. cin >> c;
3. cin >> a
4. if ((c < 3)&& (a<c))

{

5. if (b < c)

{

6. c=2;

}

1. else

{

1. b = b – c;
2. c++;

}

1. cin >>c;

}

1. b = 10;
2. c = b-1;
3. if (c >b )

{

1. b++;

}

1. cout << c;
2. cout <<b;