Assignment 6

Due on 2018-09-11, 22:59 IST.

Consider the method below:

```c
int f(int x, int y, int z) {
    if (x < y)
        return z;
    else
        return 0;
}
```

Answer the following questions related to code coverage in the method. Please note that the variable a need be a number in the range of inputs in the second position to achieve statement coverage criteria. We use the predicate p = x < y is a represent a single statement, while we make not requirement to achieve Nassoudi-Kimball Code Coverage (PKC) for the method.

1. Which of the following tests satisfies PKC for the method f(x,y,z)?
   - a) x = 1, y = 2, z = 3
   - b) x = 2, y = 1, z = 3
   - c) x = 2, y = 2, z = 3
   - d) x = 3, y = 1, z = 2

   Answer: a

2. Which of the following tests satisfies statement coverage for the method f(x,y,z)?
   - a) x = 1, y = 2, z = 3
   - b) x = 2, y = 1, z = 3
   - c) x = 2, y = 2, z = 3
   - d) x = 3, y = 1, z = 2

   Answer: a

3. How many tests are needed to achieve statement coverage for the method f(x,y,z)?
   - a) 1
   - b) 2
   - c) 3
   - d) 4

   Answer: c

4. Which of the following tests satisfies decision coverage for the method f(x,y,z)?
   - a) x = 1, y = 2, z = 3
   - b) x = 2, y = 1, z = 3
   - c) x = 2, y = 2, z = 3
   - d) x = 3, y = 1, z = 2

   Answer: c

5. Which of the following tests satisfies condition coverage for the method f(x,y,z)?
   - a) x = 1, y = 2, z = 3
   - b) x = 2, y = 1, z = 3
   - c) x = 2, y = 2, z = 3
   - d) x = 3, y = 1, z = 2

   Answer: c