SLIIT
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BSc (Hons) in Information Technology
Year 3

Tutorial – Code Coverage Analysis

SE3010 – SEPQM **Semester 1**

1. Calculate the statement coverage, decision coverage and path coverage values for the code snippets and test datasets given below.

   a)

```
1   int billValue, distance;
2   Scanner s = new Scanner(System.in);
3   System.out.print("Enter bill value: ");
4   billValue = s.nextInt();
5   System.out.print("Enter distance: ");
6   distance = s.nextInt();
7   if(billValue >= 10000) {
8       if(distance < 10)
9           System.out.println("Deliver Today");
10      else if(distance < 20)
11          System.out.println("Deliver Tomorrow");
12      else
13          System.out.println("Cannot Deliver");
14  }
15  else if(billValue >= 1000) {
16      if(distance < 10)
17          System.out.println("Deliver within 5 days");
18      else
19          System.out.println("Cannot Deliver");
20  }
21  else
22      System.out.println("Minimum  bill value is 1000");
```

Following set of test data are used for testing the above code snippet:

Test data set number	Bill Value	Distance
1	12500	8
2	`1250	7
3	950	16
4	15000	12
5	10000	25

b)

```
1  public static void main(String args[])
2     {
3        int counter, num = 5, item, array[];
4        //Creating array to store the all the numbers
5        array = new int[5];
6        array = {12,16,7,1,2};
7        System.out.println("Enter the search value:");
8        item = input.nextInt();
9        for (counter = 0; counter < num; counter++)
10       {
11          if (array[counter] == item)
12          {
13            System.out.println(item+" is at location "+(counter+1));
14            /*Item is found */
15            break;
16          }
17       }
18       if (counter == num)
19         System.out.println(item + " doesn't exist in array.");
20    }
```

Following set of test data are used for testing the above code snippet:

Test data set number	Search item
1	3
2	0